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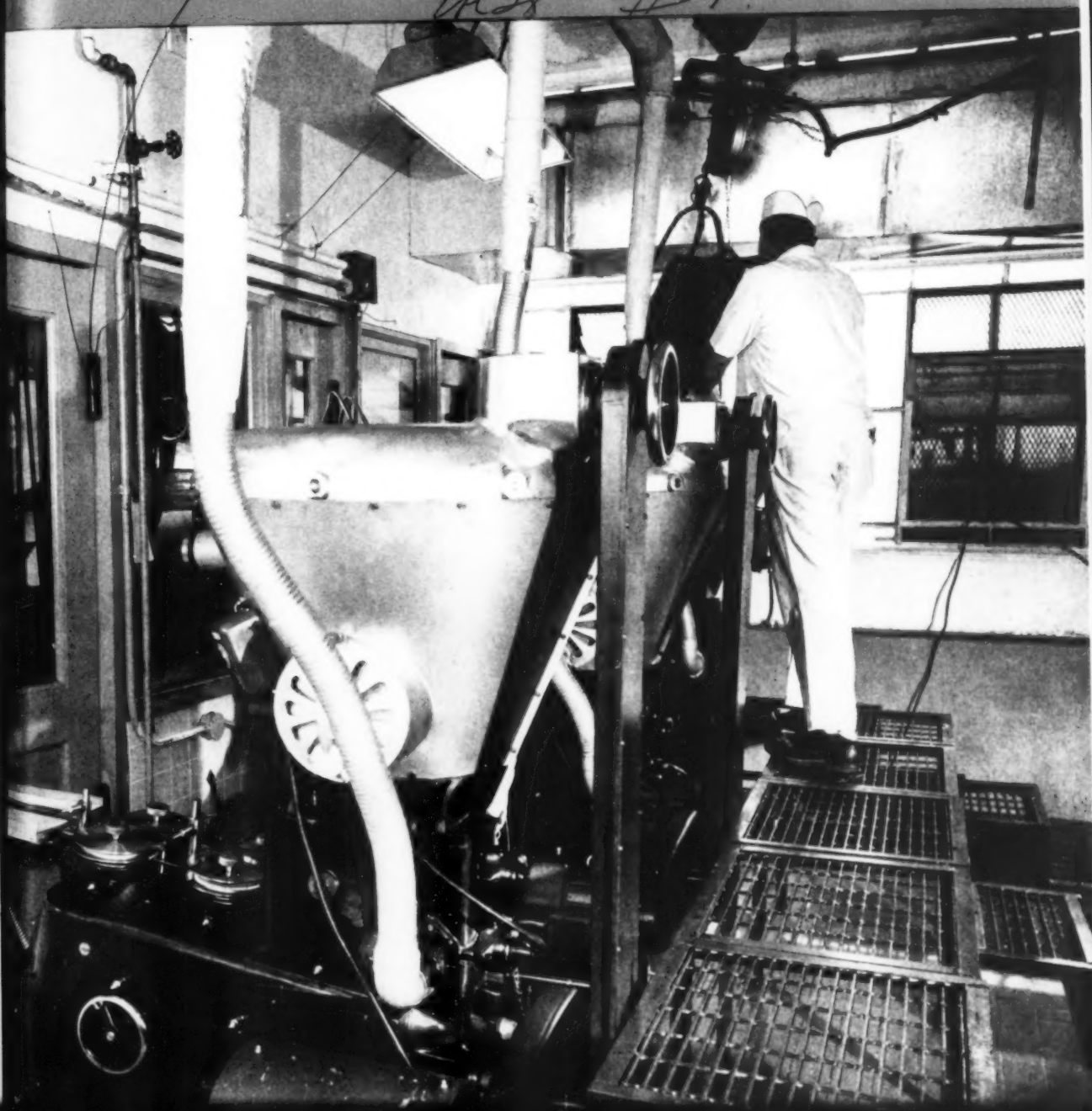
January, 1958

the Manufacturing Confectioner

Ul38 #1



Only your candy customers can break the

And when they do, they'll discover the finest flavor treat of their experience. For DOLCO-SEAL FLAVORS are "locked-in" by the unique D&O spray-drying process that assures full, fresh, natural flavor even after prolonged shelf time. Hard candies, wafer types, chewing gum and coatings achieve new taste appeal with DOLCOSEAL FLAVORS because the original volatile material is carefully protected and controlled. They are available in large variety including such favorites as all fruits, caramel, butterscotch, root beer, mint and nut... firmly sealed against flavor loss. Only your candy customers can break that DOLCOSEAL . . . and when they do, they'll come back to you for more! Let your D&O representative demonstrate the advantages of DOLCOSEAL, spray-dried FLAVORS.

D&O
ESTABLISHED 1798

OUR 159th YEAR OF SERVICE

DODGE & OLCOTT, INC.

180 Varick Street, New York 14, N. Y.

Sales Offices in Principal Cities

Essential Oils • Aromatic Chemicals • Perfume Bases • Flavor Bases • Dry Soluble Seasonings

around the country with DANIELS

...at the fine arts show

Our designers have made a fine art of packaging for many years. See how a beautiful Daniels wrap can make people stop, look—and buy!

MANUFACTURING CO. RHINELANDER, WISCONSIN

Member of Wisconsin Paper Group for better Pool Car Service

creators • designers
multicolor printers
of flexible packaging

there is a Daniels product to fill your needs

SALES OFFICES: Rhinelander, Wisconsin . . Chicago, Illinois . . Haverford, Pennsylvania . . Akron, Ohio . . Omaha, Nebraska . . Dallas, Texas . . Whittier, California

MODERNIZE YOUR PLANT WITH HANSELLA AUTOMATIC FEEDING COMBINATION

Saves you Labor

INCREASES your PRODUCTION
REDUCES your PRODUCTION COSTS

That is exactly what the HANSELLA Feeding Combination will do for you. It provides fully automatic and continuous feeding of all types of candy batches—either low or high cooked, filled or unfilled, single color or striped—with a speed of up to 265 feet of rope per minute.

Hansella

BATCH FORMER
Model 19H

We guarantee unconditionally automatic feed, not only on our Forming Machines:

HANSELLA Super-Rostoplast
HANSELLA Super-Robust
HANSELLA Uniplast

but also on:

Brach Continuous Cutter
Forgrove Cut and Wrap
Hohberger Cutter
Hohberger Ball Machine
Ideal Caramel Wrapper
Latini Lollipop Machine
MFB Stick Machine
Racine Sucker Machine
Racine Continuous Cutter
Racine Stick Machine
Rose Cut & Wrap
and other Forming Machines

Hansella

ROPE SIZER
Model 65D

We'd like to help you: Our experience in thousands of candy plants throughout the world is always at your service. So, won't you bring your candy problems to us? No obligation, of course. Always remember: Hansella makes your job easier and your candy better.

Hansella

HANSELLA MACHINERY CORPORATION
GRAND AND RUBY AVENUES, PALISADES PARK, NEW JERSEY
WHITNEY 3-4700 • CABLES: COHANSELLA

candy business

NCA revises by-laws to open committees

The directors of the National Confectioners Association at a recent board meeting revised the by-laws of the association for the purpose of getting broader industry participation in committee activities. The substance of the revisions are that individuals will be able to hold membership in a given committee for no longer than three years. The Board felt that this action would draw more men into active work in the association and would provide opportunity for some of the younger men to take a more active part and interest in the association.

Another action of the board was the decision to hold additional financial seminars in various candy manufacturing centers to discuss the annual surveys conducted for NCA. This decision was based on the very successful seminar recently held in Chicago on this subject.

The directors, also, accepted the invitation to become a sponsor of the national food Conference Committee. Other sponsors of this committee are over twenty national associations of farmers, food processors and food distributing organizations. The chairman is Charles B. Schumann, president of the American Farm Bureau Federation.

Planning for 1960 NCA convention in Philadelphia

The Planning Committee of the NCA Convention and Exposition in Philadelphia in 1960 has sent a set of recommendations to the NCA Board.

The Bellview Stratford Hotel has been recommended for convention headquarters and the Museum Exhibition Hall for the exposition. It has also been recommended that some business sessions be held at Exhibition Hall as well as at the convention headquarters hotel.

The final recommendation would make a major change in the period that the exposition would be open. The Philadelphia group feels that by opening on Saturday a much larger number of manufacturers and their personnel would be able to view the exhibits than is the case with the usual opening on Monday.

Brach net down, sales up

The annual report of E. J. Brach and Sons shows record sales of 51,000,000 in the year ending September 30, 1957, up nearly $5,000,000 dollars from the previous year. Net income, however, declined $200,000 to $2,000,000.

Candy sales continue at high level

Candy sales continue at a level 5% above last year through October according to Department of Commerce statistics. The increase in dollars and in poundage are both 5% indicating an average cost per pound identical to last year. Manufacturer wholesalers have benefited most from this increase showing a 6% rise in the first ten months of 1957 compared to the same period last year. Manufacturer retailers are up 1% and chocolate up 4%.

The major candy manufacturing areas are all up from last year; New England about 8%, middle Atlantic by 7% and the East-North-Central Area which includes Illinois up 6%. The Pacific Coast states are down 7% from last year.

Kelling names officers

Robert Kelling | Max J. Kelling | Carl E. Johnson

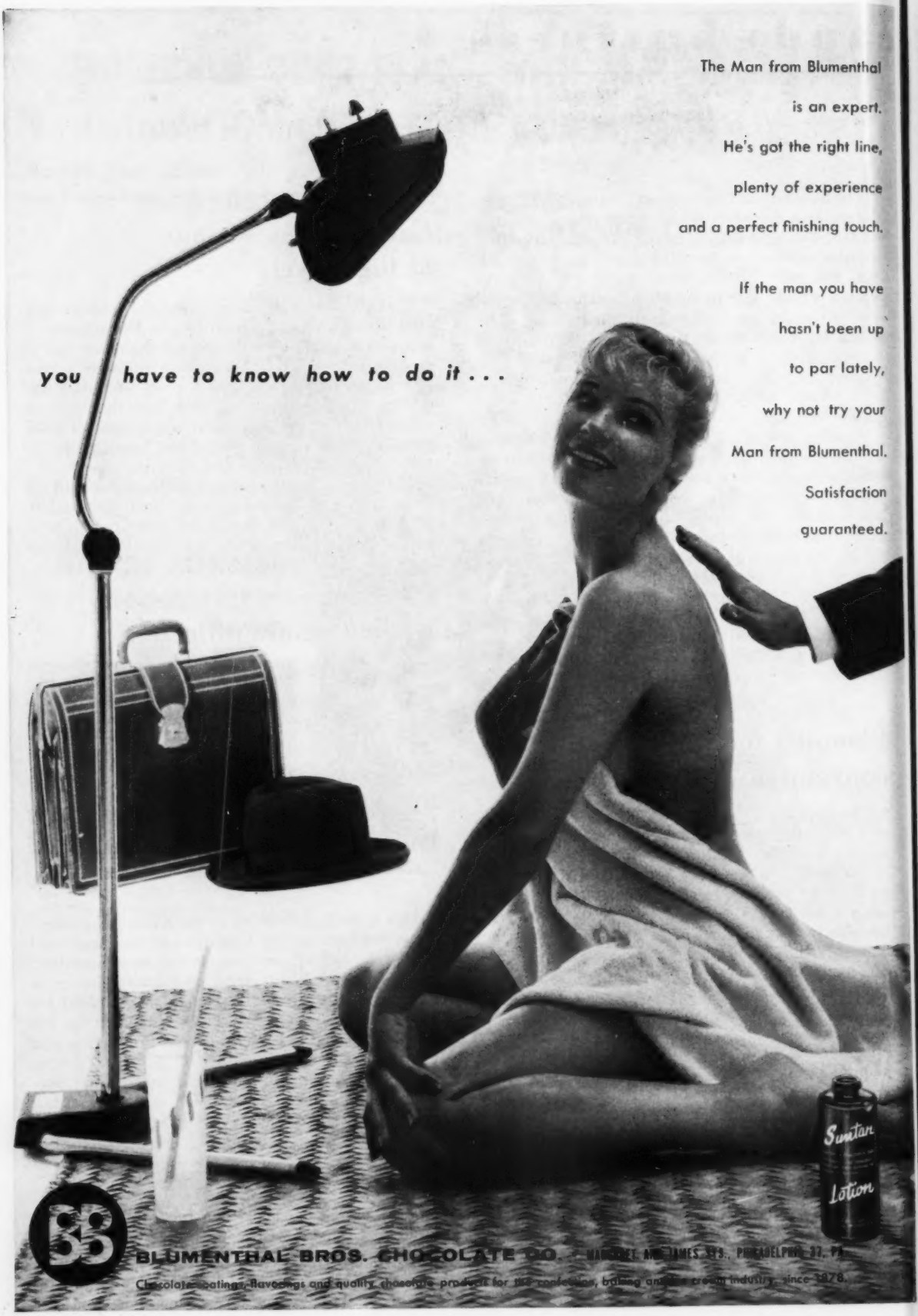
Max J. Kelling, founder of the Kelling Nut Company, has been named Chairman of the Board and Robert S. Kelling, his son, is the new president.

The vice presidents are Carl Elmer Johnson as Executive Vice President; Donald MacDonald for Sales Administration; Walter F. Halleman, Jr. for Finance; John M. LeVett, Jr. for Production and Edward S. Dęka for Procurement.

Sales of the firm for the fiscal year ending September 30th equaled $12,834,000; up 13% from last year. Net income was $248,000; up from $90,000 the year before.

C & C moves to larger quarters

C & C Candies, manufacturers of hard candy and chip dipping centers have moved to a new factory at 811 Evergreen Street, Chicago. This new plant has given them twice their former floor space.


The Man from Blumenthal
is an expert.
He's got the right line,
plenty of experience
and a perfect finishing touch.
If the man you have
hasn't been up
to par lately,
why not try your
Man from Blumenthal.
Satisfaction
guaranteed.
you have to know how to do it . . .
Sunstan
Lotion
BLUMENTHAL BROS. CHOCOLATE CO.
Chocolate coatings, flavorings and quality chocolate products for the confectionery, baking and ice cream industry since 1878.

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Philadelphia Retailers active with Show, Advertising, Award

The Philadelphia Retail Confectioners' Association will present their third annual National Candy Award at their annual banquet next month, February 24th, at the Penn Sherwood Hotel.

This group is one of the most active and best organized retail organizations in the candy field. It is probably best known for its semi-annual Candy Show which attracts buyers from all over the country to exhibits that fill the better part of two floors of the Ben Franklin Hotel in Philadelphia. (The spring show is this month, Jan. 26-28.)

The association currently has a local radio advertising program going, consisting of saturation spot commercials in their market. This program is selling the public on the home-made candy available in the members' "candy maker" stores.

Two years ago the association announced that it was inaugerating an annual award to the person who contributed the most to the retail branch of the confectionery industry in any part of the country. It is called the National Candy Award of the Philadelphia Retail Confectioners' Association.

The first award winner was Jim King of the Nulomoline Co. in 1956, and in 1957 Theodore Marquetand of Marquetand's was the recipient. The committee is now looking for nominations and votes for the 1958 Award. It is emphasized that the nominee can be from any part of the country, and does not himself have to be a confectioner. All correspondence about the award should be sent to: Harry Nuss, Secretary, 703 Grove Place, Havertown, Penna.

Sifers marketing chocolate syrup in aerosol can

Sifers Chocolate Syrup Company is marketing a chocolate syrup in aerosol pressure cans. It dispenses in a steady stream without splashing or spraying and does not require refrigeration. It can be used as ice cream topping or to make chocolate milk or hot chocolate. The can holds 16 ounces and will retail between 49c and 59c.

Philanthropic committee formed by Candy Square Club, N.Y.

The Philanthropic Committee, has been formed by the Candy Square Club of New York City to handle coordination of all charitable work in the Candy trade in that area. The committee is headed by Charles Zubrin of Topps Chewing Gum and includes Oscar I. Cohen, Irving W. Golub, Harry Schnapp, Abe Josephsohn, Edward H. Silk, Arthur Raphael, Morris Golick, Henry C. Goldenberg, Simon Diamond, Harold J. Agger, Sidney Goldberg, Morton I. Singer and Herman Eitelberg.

The Club, also, made plans at the meeting for the annual weekend outing in the spring. It will be held at the Concord Hotel, Lake Kiamesha, New York the weekend of May 22nd.

Nestle produces film

The Nestle Company has produced a 16 m.m. colored film, telling in story form, the history and development of chocolate. This film is primarily intended for use in classes as an educational aid for teachers of such subjects as geography, history, and agriculture.

Titled "The Chocolate Tree", the film is written and performed by professional actors as well as people in the cocoa growing areas and in the Nestle factory in New York.

Arrangements for showing of this film are being made by Modern Talking Picture Service.

Whitman's repeats successful spring promotion

Whitman's has announced that they will repeat last years special sales promotion of the assorted chocolates package between January 15th and March 2nd. The box which regularly sells for $1.39 will be on sale at 98c. Paul Jahn, Whitman's Sales Vice President, announced that the promotion is being repeated because of its proven ability as a traffic maker for drug stores following the Christmas buying season. All packages are banded with the special sales price and a Day-Glo display easel is shipped with each order.

Cracker Jack appoints Burnett

The Cracker Jack Company has appointed Leo Burnett Company as its advertising agency.

Calendar

January 14-16; National Flexible Packaging Ass'n, Annual Meeting, Hotel Biltmore, New York City.

January 21; Chicago Section, AACT, Graemere Hotel, Chicago. Dinner 6:30 P.M., speaker Frank Buese on "Pitfalls in Determining True Candy Costs", 7:30 P.M.

January 24-25; Packaging Clinic, National Candy Wholesalers Ass'n, Palmer House, Chicago.

January 26-28; Philadelphia Candy Show, Ben Franklin Hotel, Philadelphia, Penna.

March 2-9; European Packaging Federation Congress, Dusseldorf, Germany.

March 25-28; Packaging Machinery Manufacturers Institute, and Machinery and Materials Exposition, Atlantic, City.

April 23-25; Pennsylvania Manufacturing Confectioners' Assn. 12th Annual Production Conference, Franklin & Marshall College, Lancaster, Pa.

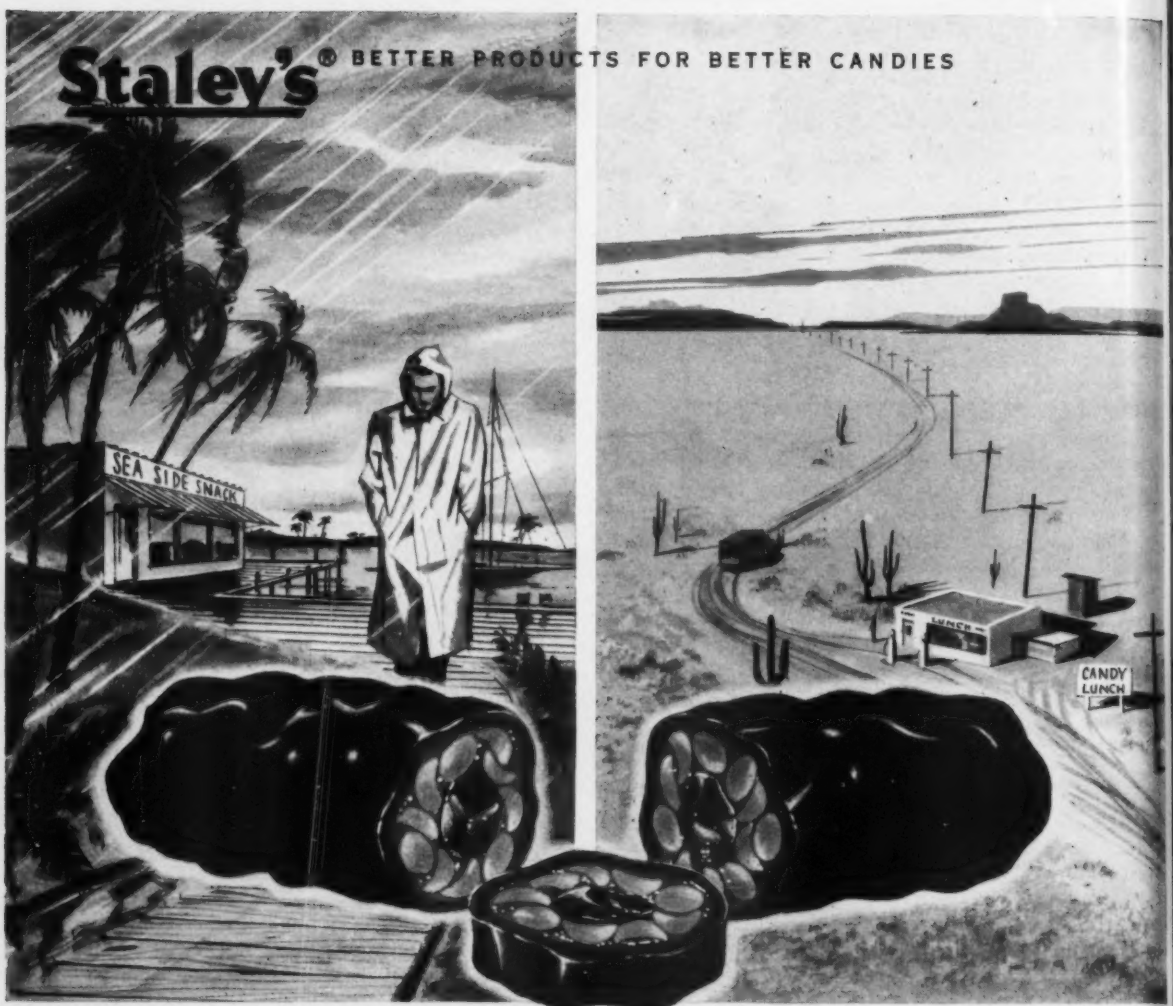
May 24; Empire State Candy Club annual dinner dance, Hilton Statler, Buffalo, N.Y.

May 26-30; AMA National Packaging Exposition, Coliseum, New York City.

July 6, 7, 8, 9; Associated Retail Confectioners Annual Convention, Mark Hopkins Hotel, San Francisco, Calif.

July 6, 7, 8, 9, 10; National Confectioners Assn., Sheraton Palace, San Francisco, Calif.

August 3-7, National Candy Wholesalers Assn., Inc. annual meeting, Commodore Hotel, New York, N. Y.



Tropical Humidity! Bars made with Sweetose held a just-right moisture balance—did not become wet and sticky.

Desert Aridity! Bars made with Sweetose kept a perfect moisture balance while others dried out, cracked and discolored.

Conclusive exposure tests prove Sweetose extends candy shelf life far longer... at lower cost

Narrow humectant range of Staley's enzyme-converted corn syrup increases shelf life—lowers costs! We gave Sweetose "the works" . . . simulating the severest conditions of jungle humidity and desert aridity in our laboratories. The result? As an all-weather humectant, Sweetose proved superior to all other humectants tested.

This means candies made with Sweetose hold an appetizing moisture level through the most extreme variations of humidity and temperature . . . allowing you, Mr. Confectioner, to cash in on a longer shelf life with bigger profits, expanded distribution.

Advantages to be had using this "Cream of Corn Sweeteners" don't stop here. Leading confectioners with plants all over the country depend on Sweetose to improve taste, texture and tenderness in their wares.

With all this, Sweetose has proved economies . . . both in sweetening and in cutting sweetener handling costs. For additional information, call your Staley Representative at the branch nearest you or write today to . . .

A. E. Staley Mfg. Co., Decatur, Illinois

Branch Offices: Atlanta • Boston • Chicago • Cleveland • Kansas City
New York • Philadelphia • San Francisco • St. Louis

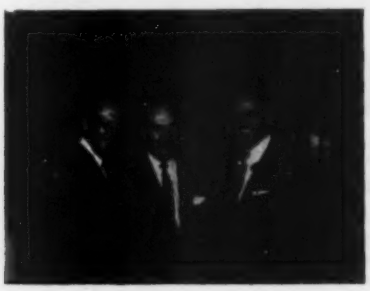
Sweetose®
CORN SYRUP

RCSI Nation-Wide Publicity

The Retail Candy Store Institute scored quite heavily during December. A box of chocolates was dispatched to the President, along with a get-well message. As reported by UP, this was to "start a chain reaction of similar get-well messages going to Ike." John Mavrakos sent chocolates to the delegates at the NATO conference so that "the disposition of all delegates remains sweet." Lydia Lane, syndicated news columnist in California, featured the annual Christmas party for paraplegic Veterans. At this affair, actress Doris Day presented a special 10 pound box of chocolates to the past president of the Association. This picture illustrated her column which appears in 200 newspapers. A Christmas candy tree, designed as a centerpiece, was released by King Features syndicate during December and also provided a theme for live TV demonstrations in Kansas City and St. Louis by the Theodore Sills organization. A description on how to make the tree was offered free to viewers. To date, the Sills office has received 200 requests. In Chicago, a CBS newsreel team filmed a Christmas party for orphans held at Mrs. Snyder's candy plant. This film was used in Chicago, and a one minute film clip was sent to all 143 CBS affiliated TV stations.

The annual **Ferrara Christmas party** was attended by brokers Gene Vogler, Syd Hoffmann and, prexy Nello Ferrara. The hosts at the party, Lou Pagano, Dr. Perrella, Nello Ferrara and Lou Buffardi.

The annual **Hubinger Christmas Party** drew (upper left) Roy Underwood, Hubinger, and from Close & Co., Mrs. Pukelis, Ed Urban and Stan Pukelis. (Upper right) Earl Crandell and partner Andy Pavela of C & C Candies with Andy's two boys. (Lower left) Mr. & Mrs. Adrian Sunkel, Dr. Perrella and Phil Gott.



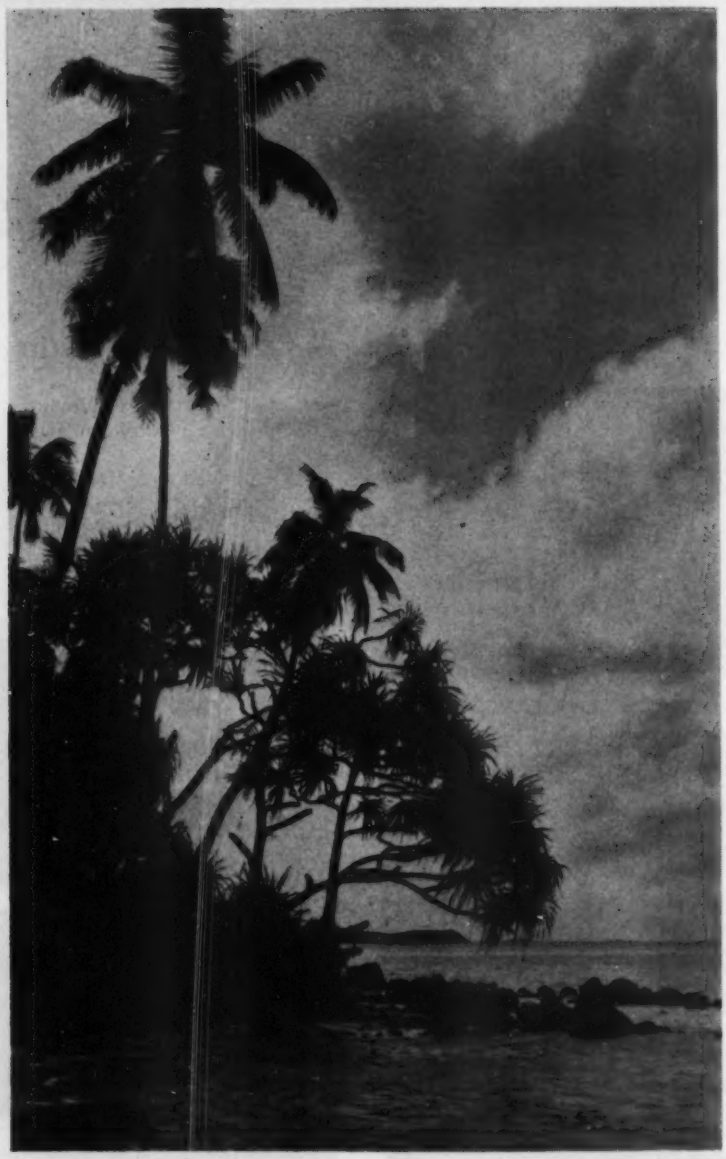
Chicago Bowlers

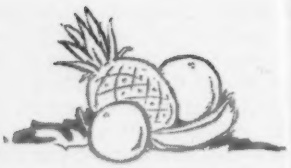
Some of the members of the **Mrs. Stevens and Powerhouse Bowling Teams** in Chicago on the night that Ernie Wollard retired. George Olson, Corn Products; Matt Breaker, Breaker Confections; Herb Knechtel, Knechtel Laboratories; Dick Cooling, Urban F. Myers; Ernie Wollard, T. M. Duche; and keeping score Wally Meyers, Mrs. Stevens Candies.

WCSA Convention

At the recent convention of the **Western Confectionery Salesmen's Association,** the new president John Griffiths (St. Louis), Ollie Clayton (Chicago) and Ralph Unger (Los Angeles) confer. Middle, Old Timers John Murphy and Art Griffiths compare notes on the last fifty years. Bottom, Ben Dorset and Mort Moser in deep consultation.

ISLAND PUNCH





Here is a medley
of wonderful flavors—
of lush, tropical fruits—
skillfully blended
to give your customers,
from kiddies to grown-ups,
an unforgettable
taste thrill.
Try this exotic,
flavorful new effect
in your hard candies,
coated cream fondants,
and pectin jellies.
You'll be delighted.
You'll be MORE
than delighted!
You'll be a sure-bet
customer for delicious
ISLAND PUNCH!
Wouldn't you like samples?

FRITZSCHE *Established* 1871 *Brothers, Inc.*

PORT AUTHORITY BUILDING, 76 NINTH AVENUE, NEW YORK 11, N. Y.

BRANCH OFFICES *and* °STOCKS: *Atlanta, Georgia, Boston, Massachusetts, °Chicago, Illinois, Cincinnati, Ohio, °Los Angeles, California, Philadelphia, Pennsylvania, San Francisco, California, St. Louis, Missouri, Montreal and °Toronto, Canada and °Mexico, D. F.* FACTORY: *Clifton, N. J.*

the Manufacturing Confectioner

with International Confectioner

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Founder—Earl R. Allured **Publisher**—P. W. Allured

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Eastern Manager—**James W. Allured** Sales Manager—**Allen R. Allured**

Circulation Director—**M. Seelman**

Publication Office	Eastern Office	London, England
418 N. Austin Blvd.	80 Wall Street	Prospect House
Village 8-6310-11	New York 5, N. Y.	Heath Street N. W. 3
Oak Park, Illinois	Bowling Green 9-8976	

Subscription price U.S. & Canada, $3.00 per year, $5.00 for two years. Individual copy 80¢. Foreign Subscription prices, $5.00 per year, $7.50 for two years. In ordering change of address, give both the new and old address. Member Associated Publications, and Audit Bureau of Circulation.

The Sweet and The Sour

One of the sweetest things we have read in many a long year was written by columnist Robert Ruark. If any of our readers missed seeing this gem, it is reprinted in full on page 50.

We have read where the pentagon has taken serious note of the reading capacity of their officers and have done something about it. A reading improvement course is being conducted which lasts one hour a day for six weeks, and tackles the basic problem of slow reading speed.

The results of this course on the 5,000 officers who have taken it, shows an average increase of reading speed from 475 to 550 words per minute at the end of the course.

There is probably no activity where an executive can get back his time and money spent so quickly as in this kind of course.

At an average minimum reading time of two hours per day for an executive, a six weeks course that increased his reading speed 100% would probably pay for itself in time saved before the course itself was completed.

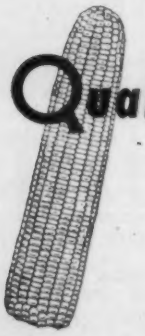
Most of our readers will probably remember the reading improvement course which we ran in this magazine, a series over a period of nine months ending early last year. Classes in reading improvement are available in most metropolitan areas both for evening and day time.

you just can't hide It...

THAT *Clinton*® QUALITY!

Take this schoolboy with a sweet tooth as an example! Make your candies with Clinton products from corn, and you'll see Clinton quality show up in plenty of ways! Clinton's syrup, starches and Clintose brand dextrose help you attain just the texture and consistency desired, the long shelf life required for repeat sales that build business.

To keep your products on top, and to develop new corn refining processes and products, Clinton has just opened a new million-dollar research center. This modern laboratory serves as "home base" for your Clinton technical man.



. . . *and remember* technical service in connection with your specific problems is available without obligation.

Quality products

FROM THE WORLD'S CORN CENTER

CLINTON

CLINTON CORN PROCESSING COMPANY

CLINTON, IOWA

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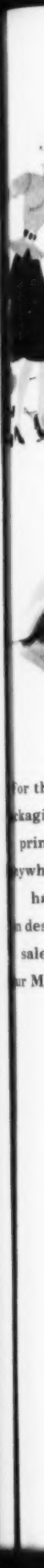

In Foil
- Added Protection
- Added Sparkle

Eye Appeal to Spark Impulse Sales!

ROTOGRAVURE

BEAUTIFUL CARTON OVERWRAPS

For the widest variety of
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printing processes available
ywhere, plus more than
half a century of experience
designing and producing
saleswinning packages, call
r Milprint man — FIRST!

BY **Milprint**

In Cellophane
- Protection
- Beauty*

Printed Cellophane, Pliofilm, Polyethylene, Saran, Acetate, Glassine, Foils, Folding Cartons, Bags, Mylar, Lithographed Displays, Printed Promotional Material

*Reverse printed sheen

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LITHOGRAPHY & PRINTING

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Sales Offices in Principal Cities

Helpful Books for Candy Plant Executives

Confectionery Analysis and Composition

by Stroud Jordan and Katheryn E. Langwill

This volume, first published in 1946, is still the only published reference work on the subject of confectionery analysis. It concerns itself with applicable data that covers composition of basic raw materials as well as that of the finished confections in which they have been employed.

Choice Confections

by Walter Richmond

This new book contains 365 formulas for making two batch sizes, one for hand work and one for machine work. There are instructions for each batch, with suggestions as to the methods of coloring and flavoring for variety. A glossary is included, both of candy and chemical terms. All of the formulas are cross indexed, and a complete chapter is presented on chocolate.

How to Salvage Scrap Candy

by Wesley H. Childs

This booklet is a complete revision of the author's work "Modern Methods of Candy Scrap Recovery" published in 1943. A considerable amount of information has been collected since that time on methods and techniques of salvaging scrap candy. This booklet covers all types of candy, and gives many practical and economical ways of converting scrap candy into a useful form for re-use.

A Textbook on Candy Making

by Alfred E. Leighton

Here is a textbook where the reader can learn the basic fundamentals of candy making, the "how" and "why" of the various operations in non-technical terms. Particular attention is given to the function of raw materials, and why each is included in a formula.

The Candy Buyers' Directory The Directory of Candy Brokers

1957 Edition

The Candy Buyers' Directory is an alphabetical and classified directory of wholesale candy manufacturers giving information on what type of candy is made by each firm, and in some cases the type of packaging used. The Directory of Candy Brokers is a geographical listing of over 600 candy brokers giving the accounts that they handle, the territory covered and the number of salesmen.

Profits Through Cost Control

by Frank Buese and Eric Weissenburger

This material deals with the problems of cost control in candy plants including planning for profit. The emphasis is on planning operations so that a profit will be made, and in early detection of those factors which will adversely affect profit.

- ☐ **How to Salvage Scrap Candy** **$2.00**
- ☐ **Choice Confections** **$10.00**
- ☐ **A Textbook on Candy Making** **$6.00**
- ☐ **The Candy Buyers' Directory and The Directory of Candy Brokers** **$4.50**
- ☐ **Confectionery Analysis and Composition** **$6.00**
- ☐ **Profits through Cost Control** **$2.00**

Book Department
The Manufacturing Confectioner
Publishing Company
418 N. Austin Blvd.
Oak Park, Illinois

Date.....

Gentlemen:

Enclosed is my check for $.....to cover the cost of the books I have checked at the left.

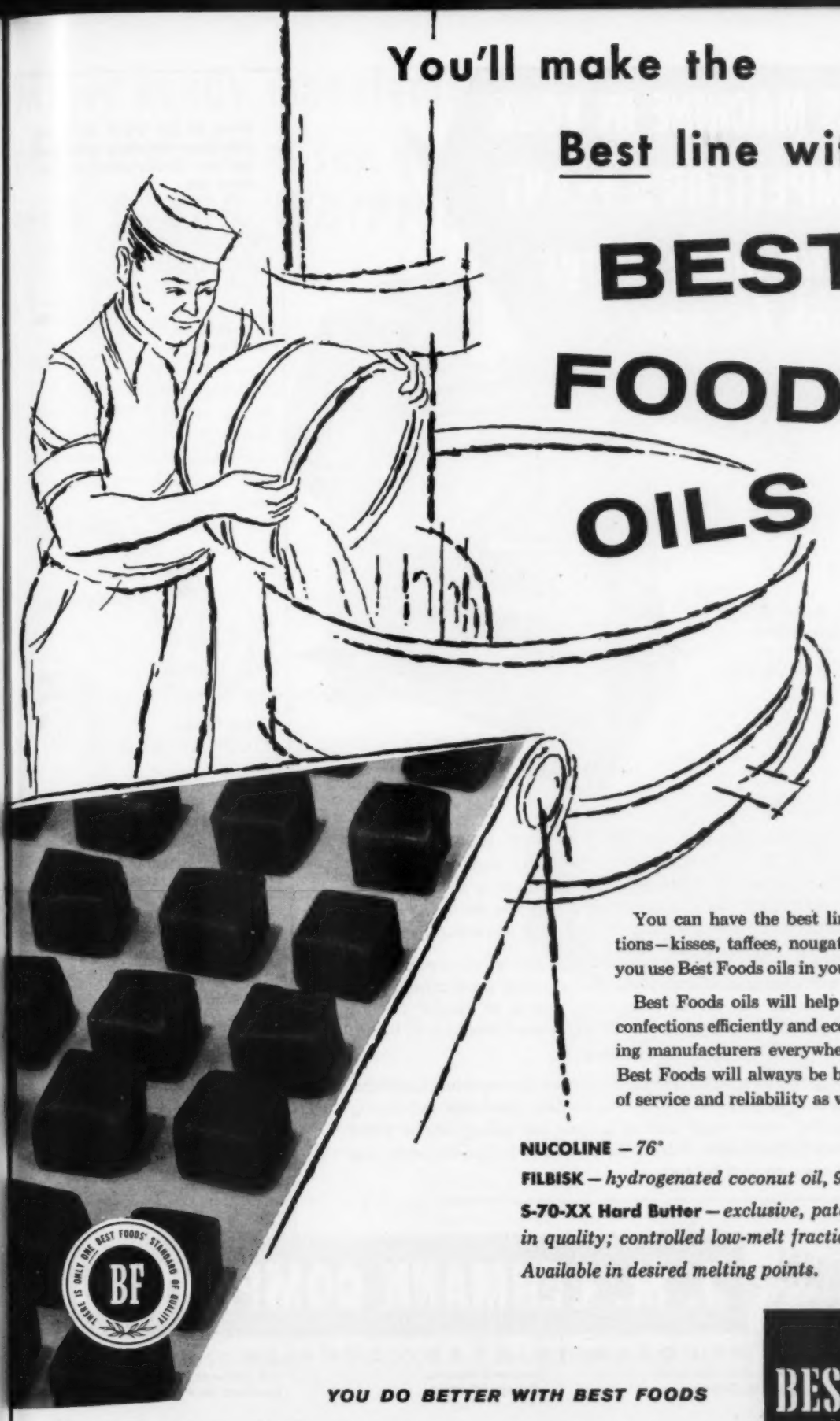
Name ..... Title .....

Firm .....

Street .....

City ..... Zone ..... State .....

You'll make the Best line with BEST FOODS OILS



You can have the best line in chewy confections—kisses, taffees, nougats and others—when you use Best Foods oils in your candy production.

Best Foods oils will help you produce better confections efficiently and economically—as leading manufacturers everywhere will testify. And, Best Foods will always be best for you in terms of service and reliability as well as quality.

NUCOLINE — *76°*

FILBISK — *hydrogenated coconut oil, 92°-110°*

S-70-XX Hard Butter — *exclusive, patented and uniform in quality; controlled low-melt fractions.*

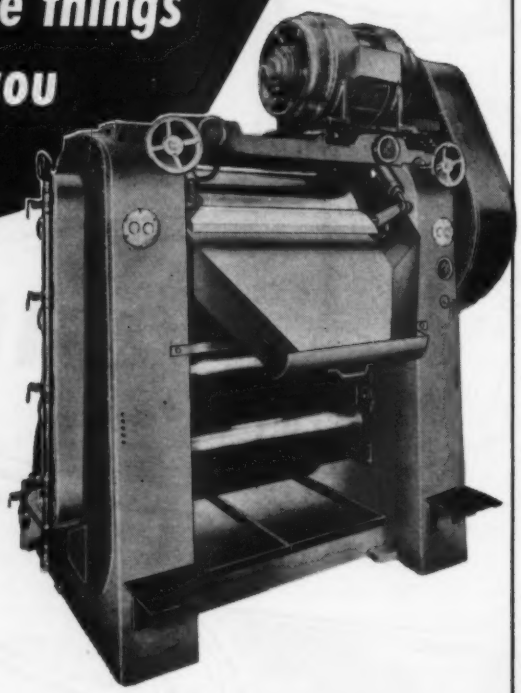
Available in desired melting points.

YOU DO BETTER WITH BEST FOODS

NEW YORK • CHICAGO • DALLAS • SAN FRANCISCO

THE BEST FOODS INC.

THIS MACHINE IN YOUR COMPETITOR'S PLANT — *can make things tough for you*



Lehmann Model 651-CV Chocolate Refiner, with Sight-O-Matic Control

The LEHMANN 651-CV CHOCOLATE REFINER with SIGHT-O-MATIC® CONTROL definitely improves quality, increases output, and reduces costs wherever it is installed. If your competitor has this equipment, and you do not, you are, in effect, yielding him a strong competitive advantage.

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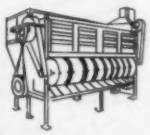

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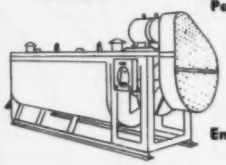

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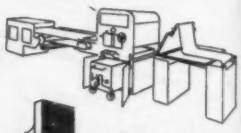

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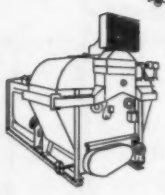

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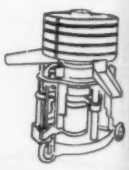

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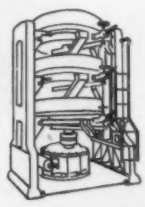

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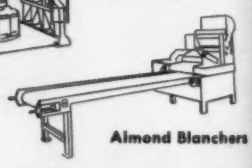

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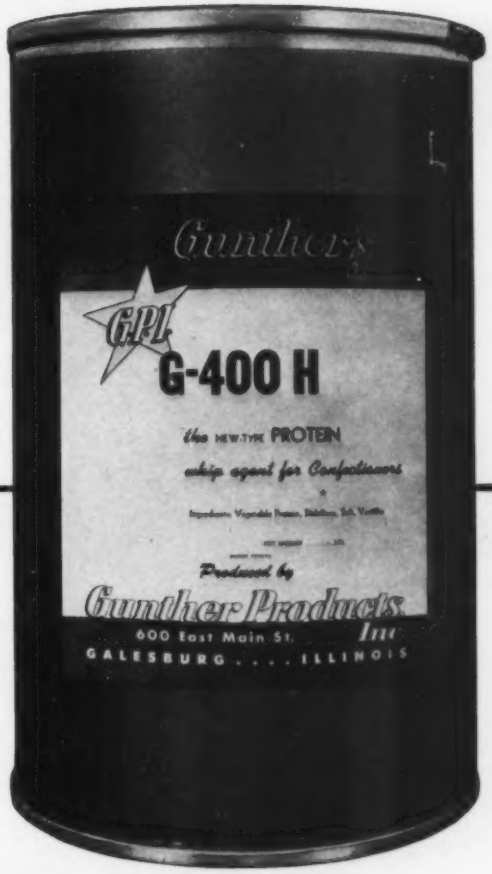

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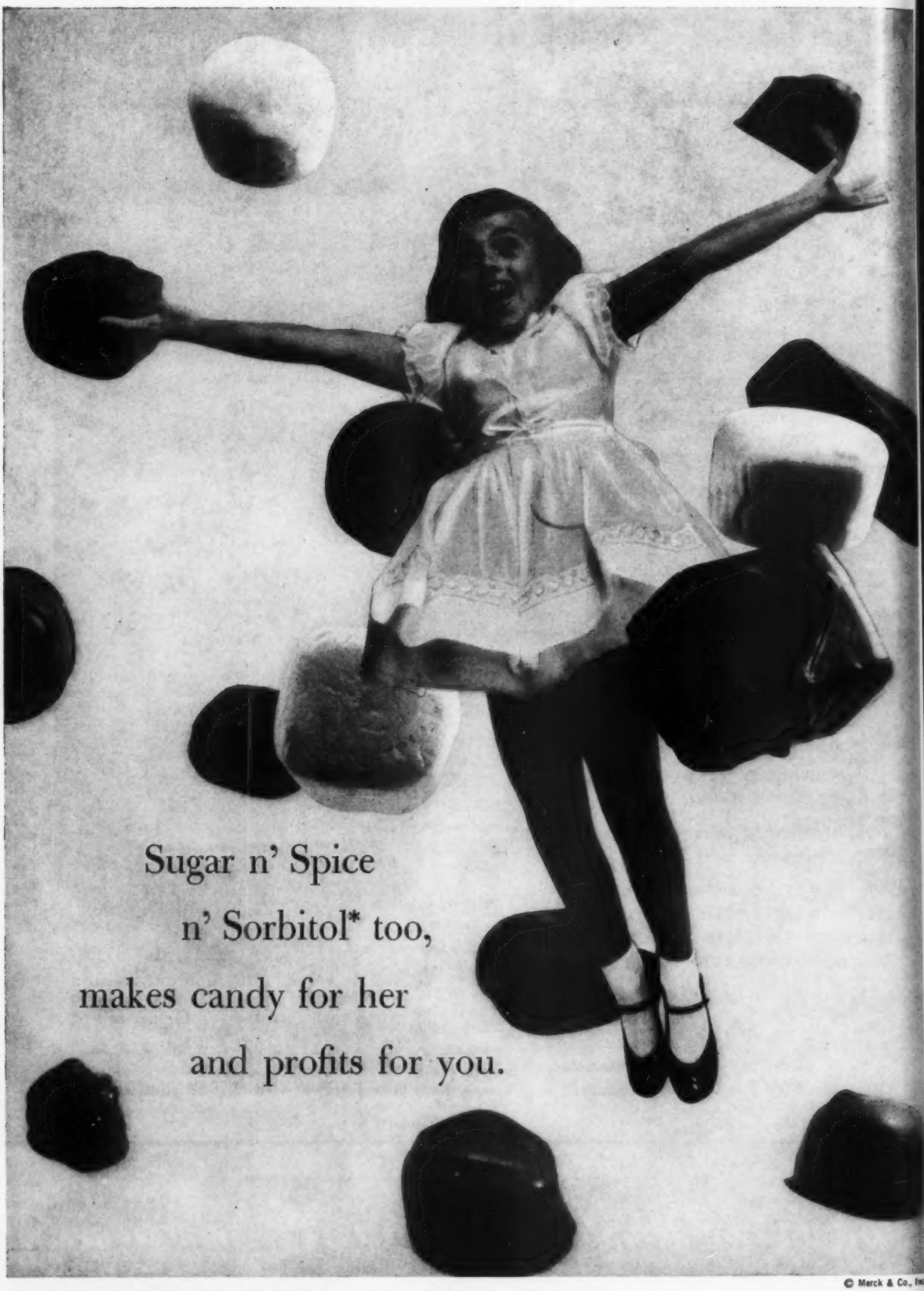

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and
Katheryn E. Langwill, M.S., Ph.D.

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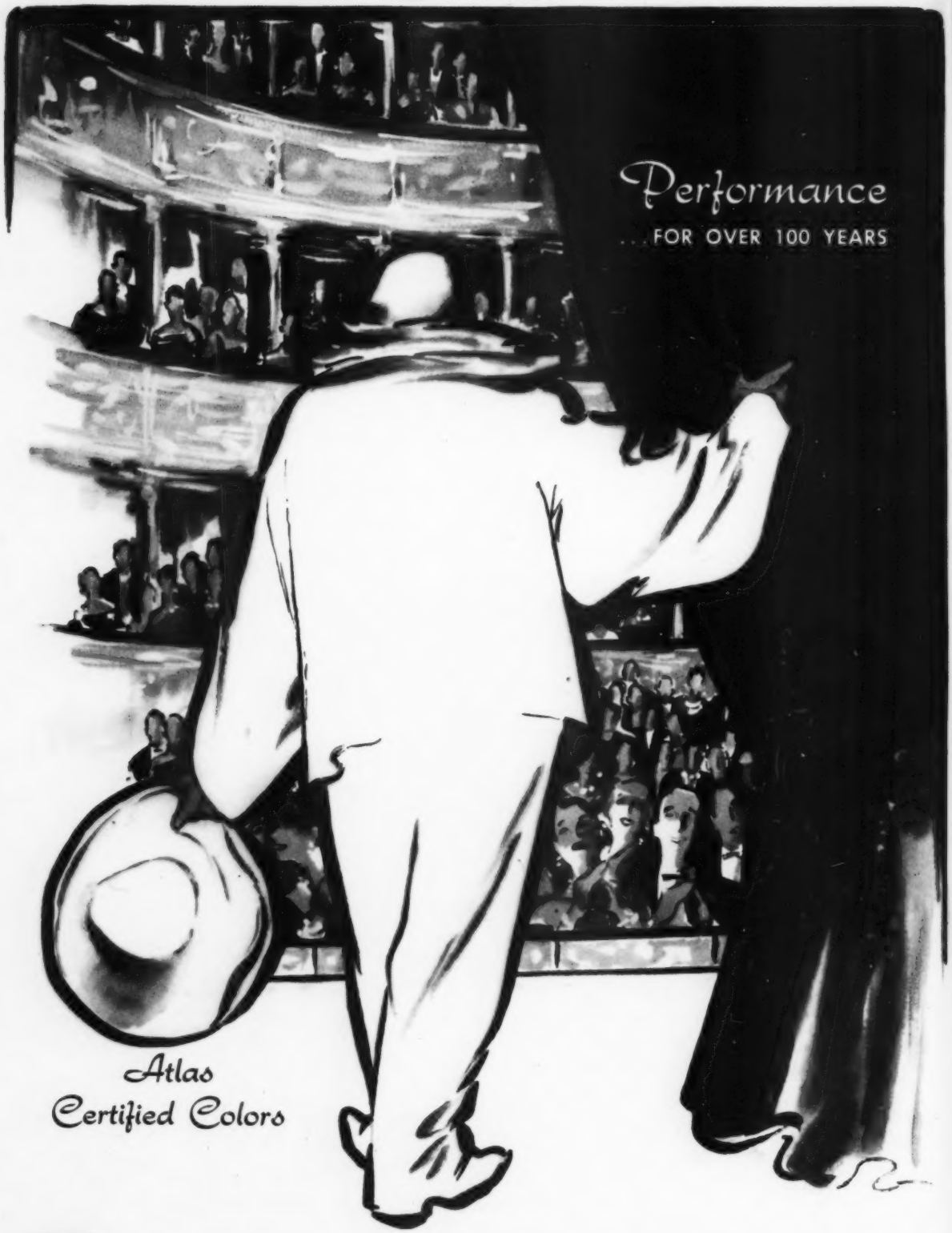

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the Manufacturing Confectioner

January, 1958

Volume XXXVIII—Number 1

The mechanics of radiant heat transfer

BY C. A. MILLS, PH.D., M.D.
Professor of Experimental Medicine,
University of Cincinnati
President, Reflectotherm, Inc.

Food processors, bakers and candy manufacturers are proceeding rapidly toward complete mechanization of their production facilities,—thus company executives and engineers are finding it imperative that they understand the basic principles involved in such mechanization. Maximal use of costly plant space, labor costs, the need for ever increasing output, constancy of quality control,—such are the primary factors behind this urge toward automation.

In many cases where heat treatment of a product must be followed by heat removal or cooling, the cooling technique is more important for product quality than the heating method used. This is particularly true where the product undergoes a "change of state", from liquid or semi-liquid to a solid crystalline structure. Until very recently product cooling was considered a convective air-conditioning problem, but current developments in radiant heat transfer are now introducing entirely new concepts in the heat transfer field. In this article an attempt will be made to present these new concepts, streamlined as much as possible to aid their comprehension by plant executives and engineers who must now apply them to their daily production problems.

Heat transfer engineers have secured such success and wide acceptance of convective air-conditioning during the past quarter century that they have been led to a considerable neglect of the possibilities inherent in the use of radiant channels. Surprising results of radiant cooling in the crystallization and hardening of chocolate coatings and cookie sandwich fillings recently gave rise to (up to then) unanswerable questions and to this critical review of existing knowledge in the field of radiant heat transfer. Although limited use of radiant conditioning (for people) had been going on for several years (1), it was the surprising product cooling results (2), which gave the first hint of the radiant principles at work,—results explainable only on the assumption that *latent heat* of "change of state" in solidifying materials is emitted at ultra-long infrared wavelengths (100 to 400 microns) to which most organic materials are largely transparent, and that, in general, the cooling and hardening of such materials takes place mostly by latent heat loss,—through radiant channels.

For instance, carbon-blackened cold plates positioned above a conveyor belt induce the hardening of chocolate coatings in 25 to 50% less exposure time than is required in cold-forced-air operation of the same tunnel,—often with a 35 to 100% increase in product output. Use of both cold-forced-air and blackened cold plates gave no better results than with the plates operating in still air.

Much of the basic knowledge on radiant heat origins and emissions known to theoretical physics has not yet found its way into practical heat-transfer engineering applications. Such basic knowledge is perhaps best covered in various sections of the Encyclopedia Britannica (3) prepared by some

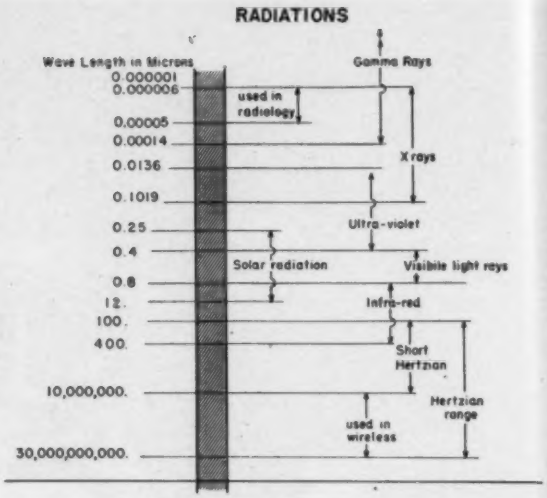
of the world's leading theoretical physicists. In the following paragraphs is presented a general digest of these radiant heat transfer features most directly bearing on product cooling problems.

Radiant Energy Transfer

Molecules, atomic nuclei and *electrons* of all materials are in constant activity and are emitting and absorbing radiant energy even when in "Stationary" state of constant temperature. The intensity of such radiant emission is proportional to the fourth power of the material's Absolute temperature. In "stationary" states this radiant energy has three sources: (a) electron vibrations in the outer shell of the atom, (b) vibrations of the atomic nuclei, and (c) vibrations of the molecule as a whole. Radiant energy from (a) and (b) lie in the shorter infrared wavelengths (1 to 20 microns) and constitute the major part of the total radiation, while that from (c) lies far out in the longest infrared ranges (100 to 400 microns).

When a change is made from one "stationary" state to another, definite additional quantums of energy are involved either in the direction of absorption or emission. Changes from solid to liquid molecules, while in the reverse direction of change similar quantums of energy are emitted. *Molecular* re-arrangements or changes in "stationary" state are associated with absorption or emission of radiant energy in the far infrared ranges of wavelengths (100 to 400 microns), *intra-molecular* rearrangements of ions or electrons are associated with absorption or emission in the shorter infrared wavelengths (1 to 10 microns), while change *within the atom* are associated with absorption or emission in the visible and ultraviolet ranges of wavelengths (0.2 to 0.8 microns). Fission or fusion reactions of atomic nuclei lead to radiant emission at the shortest wavelength end of the spectrum. Non-metallic materials (such as candies) are largely transparent to radiations of wavelengths beyond 100 microns (Hertziam waves as used in diathermy). Passage of such radiations through non-metallic materials results in the absorption of varying amounts of this radiant energy by molecules throughout the mass and in an increase of their rotational activity and temperature level. Since radiant *emissions* and *absorption* are known to be essentially identical processes but in opposite directions, it follows that molecular activity and temperature level can be *reduced* by external absorption of all such infra-red (short Hertzian) radiations emitted outward through the surrounding mass which is in turn largely transparent to energy in this range of wavelengths. Deep cooling of such materials is thus possible quite independent of other wavelengths of surface radiant emissions or of surface conduction-convection cooling. This includes especially the ready removal of the *latent heat* of "change of state", as in product solidification. (*End of digest*)

Radiant transparency of organic materials such as candies is proportional to the radiant wavelength involved. Such materials absorb most radiations below 1 micron wavelength but increase in transparency as wavelengths increase. Dry human skin has been found to be 50% transparent at 10 microns wavelength (4) and only slightly absorptive at wavelengths beyond 100 microns (medical diathermy range). Conductance of heat within non-metallic materials is thus not a matter of molecule-to-adjacent-molecule energy transfer but rather a function of radiant wavelengths involved and the degree of the material's transparency. Radiations of shorter wavelengths may be absorbed and re-radiated several times in their passage from a material's center to its surface, while the rotational energy of its molecules and "Change of state" give rise to long wavelength radiations which can exit directly.



Radiant Cooling of Products

For the radiant cooling of products such as cakes, thick slabs of raw meat, or other organic masses not undergoing a "change of state", we have found the usual radiant heat transfer formulas to hold fairly well. In such cases, the greater part of radiant emanation is from the material's outer layers and at the shorter infrared wavelengths to which the material is not transparent. We have found such radiant heat removal to take place equally well whether the cold plate surface be above the product or below, in which latter case convective cooling from cascading cold air currents could play no possible part. With cold plates positioned above the product to be cooled, product temperatures drop equally well after a polyethylene curtain has been drawn across below the cold plates to prevent cold down drafts from plate to product.

Similar tests have been carried out with the radiant heating of products under conditions prohibiting air heating, and with the same clear dominance of radiant heat transfer.

We have found the radiant cooling of products to be largely independent of air movement or air temperature except under blast conditions or in cases where evaporative cooling can be a considerable factor. Radiant cooling without "change of

state" exhibits the expected relationship to gradient of temperature differences between product and cold plate,—the greater this difference the more rapid the radiant cooling.

Although most of a product's *sensible* heat radiates at the shorter infrared wavelengths, that being radiated from the material's molecules as they drop to a lower level of rotational or vibrational activity leaves directly from each molecule throughout the mass at the ultra-long wavelengths (100 to 400 microns) to which the material is transparent. Such radiations do not follow the usual surface emission laws,—instead they contain a depth factor also.

Emission of the *latent* heat of "change of state" (as in solidifying chocloate) is at these same ultra-long infrared wavelengths, in sharp contrast to the much shorter infrared wavelengths of most of the *sensible* heat. This heat is of electron origin and is emitted directly at ultra-long infra-red wavelengths as the material changes from the liquid state into the fixed lattice crystalline structure of a solid with sharply restricted electron motion. These diathermy-type rays pass readily through most organic materials but are reflected back from metal surfaces unless such surfaces are carbon-blackened. Even a Bismuth-blacked metal surface will reflect back 40% of radiant heat at 10 micron wavelength and is almost completely reflective for the 200 to 400 micron wavelength radiations. On the other hand, a carbon-blacked metal surface absorbs almost 100% of *all* wavelengths of radiant heat striking it, with a negligible amount of reflection at even the longest wavelengths.

In tailoring a chocolate cooling tunnel to fit these radiant heat transfer facts, we originally used vertically-positioned cold plates (with reflectors and drip troughs) above the conveyor belt and a horizontal plate below the belt. Such exposed cold plates could not be operated below icing temperatures, for glaze ice is highly reflective to infrared rays. To simplify the tunnel design and make it possible to operate the cold plates at sub-freezing temperatures, we changed over to polyethylene-enwrapped plates* positioned horizontally above and below the conveyor belt which itself should be of infrared-transparent material. Polyethylene film is fully transparent to all infrared wavelengths and of very low moisture permeability, hence very useful for our plate-enwrapment purpose. Conveyor belts consisting of polyethylene bonded on to strengthening fabrics aid greatly in free radiant heat removal from below as well as above.

By properly controlling relative humidity within such tunnels the enwrapped cold plates can be operated at any desired receiving temperature. One design, for instance, calls for a plate temperature of -25°F operating in air at 32°F and 30% R.H. for use in the radiant freezing of products.

These considerations become very pertinent and important in such commercial operations as the setting-up and hardening of chocolate coatings and blocks, as well as in other organic "change of state" processes. Chocolate-enrobed products can be fully hardened by exposure in still air to liquid-chilled

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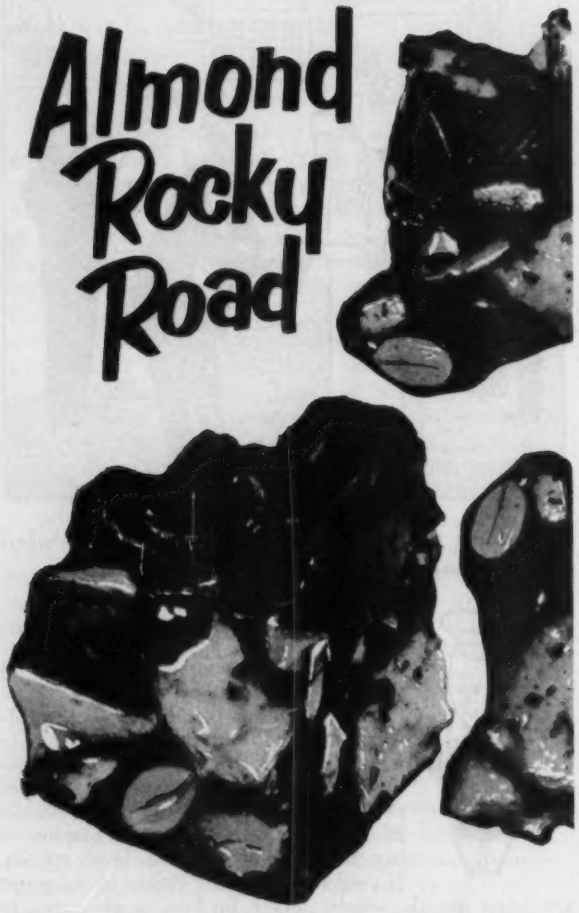

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carbon-blacked cold plates at temperature gradients and time intervals adequate only for radiant transfer of the necessary *sensible* heat according to the Stefan-Boltzmann formula. The *latent* heat liberated in the chocolate's "change of state" is several times greater than the *sensible* heat given off in its temperature drop down to the crystallization point, and there can be no question that this large amount of ultralong wavelength *latent* heat is absorbed onto the carbon-blacked cold plates and removed by the chiller equipment,—it shows up clearly in the refrigeration loads encountered.

Receiving temperatures of blackened cold plate surfaces are of prime importance in the sensible cooling of materials down to the "change of state" point, but theoretically these temperatures are of little importance in the *latent* heat transfer so long as adequate heat removal facilities are incorporated into the cold plate system.

Herein lies the inherent weakness of attempted air-cooling of products undergoing "change of state" in metal-enclosed tunnels or cabinets. The long-wave *latent* heat flashes out to be reflected back from or absorbed on enclosing walls and these walls must now be cooled by air-stream contact, else their warmed surface will re-radiate shorter rays back onto the product. Here the old battle of air vs fluid-line cooling of surfaces definitely and clearly resolves in favor of the fluid-line.

Properly engineered radiant cooling thus carries clear advantages over air cooling for *sensible* heat removal from products, but for *latent* heat removal from "change of state" processes its use becomes almost imperative and compulsive if proper crystalline structure (5) and heat removal economy are to be achieved. So-called air cooling of products is usually to a large degree indirect and inefficient radiant cooling via the metal enclosure surfaces. Too rapid cooling of hardening products by cold air currents must be avoided, because of surface case-hardening while the deeper layers are still liquid. No such precautions are needed with radiant cooling, however, since the radiant "change of state" heat exits freely from the deeper portions as well as from the surface of the mass.

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*Fully covered by patent applications.

How to launch a satellite in 14 days

BY STANLEY ALLURED
Editor

The launching of Leaf's Sputnik, just fourteen days after the original, was made possible by a combination of fortunate circumstances and management drive.

The basic decision to divert a new piece, that was almost ready for introduction, into Sputnik and the necessary plans were made on Monday, October 7, after the first word was flashed to the world of the Russian launching the previous Friday. Leaf's package designer, Barry Nolan was called and just from a telephone conversation started sketches on the box. The next day he brought them in for discussion and approval, and on Wednesday delivered the finished art work. The engraver was waiting, took the art work, and delivered the plates on Friday. Meanwhile, a comprehensive drawing on the box was prepared by Barry Nolan, and photographs were made for the sales staff.

Orders were booked during the next week, while the production department awaited the receipt of boxes. The first delivery of boxes was on the 19th, and shipments started on the 21st, fourteen days after the world first heard the word Sputnik. At this writing, just one month after the first shipment, second and third repeats from customers indicate that it may very well be a permanent item, a monument to the initiative of this business firm.

The publicity was handled by Leaf's agency, Bozell and Jacobs, through Allan Jacobs. The first release went out on October 17, before the first shipment. This release went to all newspapers, networks and radio and TV stations. This was followed on October 22 with another release, which indicated that the first box was shipped to Nikita Kruschev "in the spirit of the International Geophysical Year." A box of Sputniks was sent along with it. This release was used by a tremendous number of stations and newspapers around the Country.

Marshall Leaf addressed a personal letter to all the major personalities on radio, TV and in magazines and newspapers telling of Sputnik and sending along a box. Mentions included Garroway's Today, Jack Paar's Tonite, NBC's Monitor, and many columnists and commentators.

Some background on how the decisions and ideas were brought up and discussed throws interesting light on Leaf Brand's management. The original idea for using the name Sputnik came from Martin Leaf, production superintendent. This is surprising, not only because the idea came from

This is one of the publicity photos that helped put Sputnik Bubble Gum in hundreds of newspapers around the country. It shows Marshall Leaf, wearing the fur hat that he bought in Russia last year, mailing the first box of Sputnik to Khrushchev.

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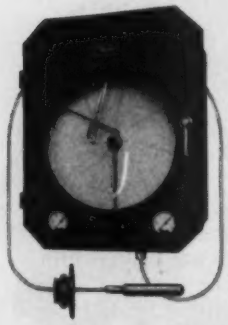

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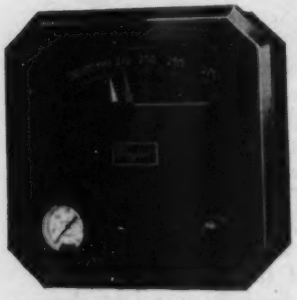

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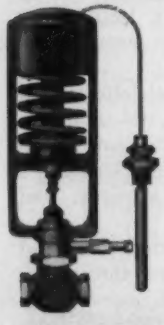

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MEAN ACCURACY FIRST

a production man rather than from the merchandising department, but also because there was a regular channel through which ideas for the general benefit of the business could be sent from production men to top management.

Leaf instituted a combined committee of production and sales a year ago to provide regular meetings between these two management interests. They meet as a group twice a month. Membership on this committee consists of three each from production and sales, plus the merchandising director, laboratory director and purchasing director. This committee has no specific duties or responsibilities, but its meetings do result in a much greater understanding and appreciation of the interests and problems of each department from those who seldom contact them directly.

It was to the chairman of this committee, Executive Vice President Sam Shankman, that Martin Leaf's suggestion was directed. This committee met in special session that same day Monday, October 7th and was able to make the complete plans and schedule for the project within an hour or two, without long drawn out conferences between individual people on the many problems and procedures that had to be modified and changed from previous plans.

One of the fortunate circumstances that favored the quick action on Sputnik was the fact that the piece that ended up as Sputnik was actually in the advanced stages of planning for many weeks.

The story really starts three years ago when Leaf introduced Ball O Fire, their first item radically different from anything previously in their line of ball gum. The difference lay in its soft coating, hollow center, large size for a penny seller, very strong flavor and unusual name. This was judged such a success that a companion piece was introduced about one year later, the Sour Grape piece. This was comparable to the Ball O Fire in its characteristics, and was followed last year with Sour Apple. All these three followed the original successful formula of size, flavor, and soft coating. The fourth in this line was in the final stages of development when Sputnik first flashed on the world scene, to change the plans. The item which was to be fourth, still, of course, highly confidential, has been shelved until the time is deemed appropriate for another piece in the line.

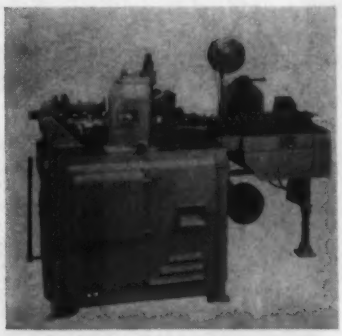
What has been billed as an "asteroid finish", the unusual sugared effect on Sputnik, also has an interesting history. It was developed some time ago in the laboratory, but was held as something of a curiosity without any real idea as to where it could be used. It was quickly recognized as a natural for the Sputnik, though there is no record of the gifted ad writer who gave it the name "Asteroid finish".

The story of how the idea for Sputnik originated, and was adopted and pushed through to production and profitable sales, is one of a tightly run organization. The example it shows of a well coordinated management group is sadly lacking in too many business organizations.

The end

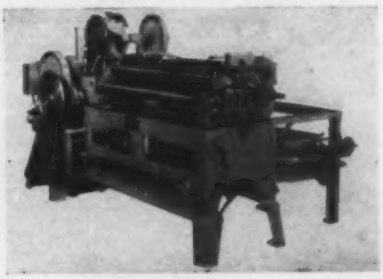
CANDY EQUIPMENT PREVIEW

LATINI DIE POP MACHINE
WITH WRAPPING ATTACHMENT



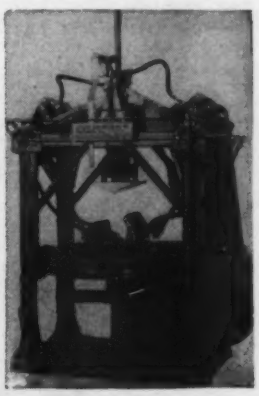
225 formed and wrapped pops per minute.
Low labor cost operation — one operator does the work of four people.
Die pop is free of fins — eliminating scrap.
Weight of pop is adjustable — without change of dies.

HOHBERGER BALL MACHINE



Only one operator required to produce up to 1,200 lbs. per hour.
You can produce.
Balls—clear, pulled or honeycombed filled—9/16" to 1½" diameter.
Sunbeam Starlights: stripes brought down to center without expensive inlay.

BERKS HARD CANDY MIXER



Mixes color, flavor and acid in 75 to 125 pound batches at rate of 1000 lbs./hr., 10% scrap may be included. Saves labor and floor space. Assures uniform mixing and constant rate of production through the day.

M.F.P. Stick-Master
patent pending

New Style—Twister, Cutter & Straightener

Flexible—satisfies all lengths and diameters

Productive—Up to 1200 inches per minute

Sanitary—Stainless steel finish—Candy always in sight

Representative:

John Sheffman, Inc. 152 West 42 Street New York 36, N. Y.

YORK Rotary Portion Former

Cuts Costs... increases production of uniform portions.

Photo by courtesy of Mary Sue Candies, Baltimore, Md.

Patent Pending

Now you can produce candy centers or bars just the way you want them — accurate for weight, size and shape and uniformly ejected in unsurpassed quantities per minute — with the York Rotary Portion Former.

- **Operating on a new principle, the York Portion Former does not extrude but forms and shapes each portion individually.**
- **Vacuum forming prevents damage to the most delicate ingredients so that a wide variety of confections and candy mixtures may be used.**
- **No starch or starch casting equipment is needed. It eliminates slabs, scoring or cutting equipment. Takes candy cool enough to be coated and forms as many as 1800 small pieces per minute . . . handles up to 2500 lbs. of material per hour. Each machine is equipped with variable speed regulator.**
- **Continuous operation through to enrober requires no storage between processing stages. Saves valuable plant space.**
- **Cuts costs, too! One York Rotary Portion Former paid for itself in only four months, through reduced labor time and costs.**

York Rotary Portion Formers are available in three sizes: 16", 24" and 32" widths.

Free Brochure . .

gives all the facts. Send for your copy today.

YORK FOOD MACHINERY CO.

BOX 1461
YORK, PA.

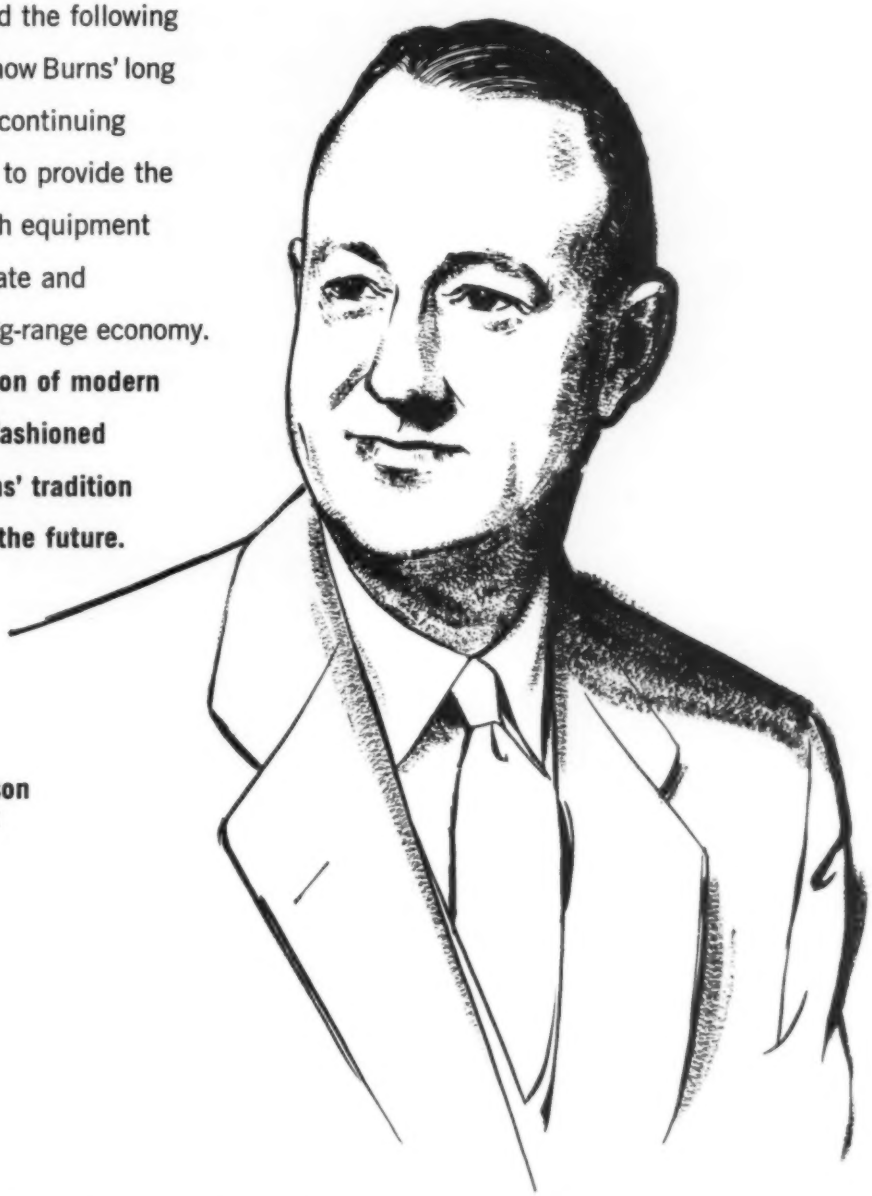
PLANT: Columbia, Pa.
PHONE: MUtual 4-2138

Manufacturing Agent: John C. Motter Printing Press Co., York, Pa.

Let's start this year off right by getting acquainted. That sounds strange coming from a company that has served the food industry more than 90 years, but we know that many of Burns' oldest friends are aware only of what Burns' service **now** means to **them**— and don't realize the scope of Burns' service, or what we contribute to other areas of the food processing industry.

We've prepared the following pages to show you how Burns' long experience and continuing research combine to provide the food industry with equipment that's both up-to-date and built to last for long-range economy.

This combination of modern technology and old-fashioned integrity is a Burns' tradition and our formula for the future.



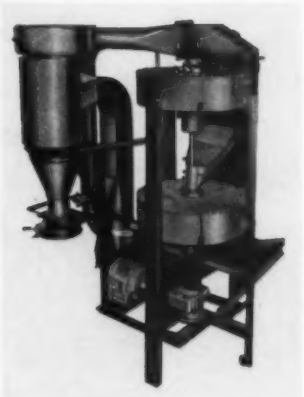
J. L. Robinson
President

CALL ON BURNS FOR MORE

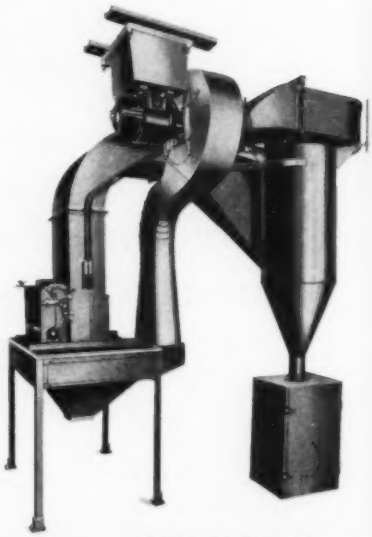
for Peanut Butter, Salted Nut and other Nut Processing

For roasting, cleaning, blanching or milling — single machines or complete plants—nut processors all over the world have learned that they can count on Burns for efficient, modern and economical machinery. Burns nut equipment is designed and built to give many years of dependable performance, and Burns engineering and installation services provide efficient layout and smooth operation.

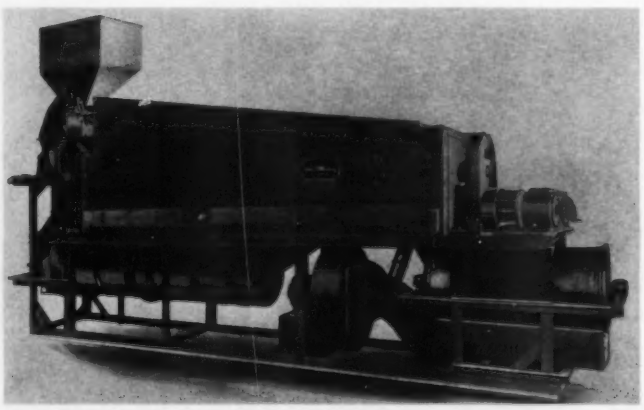
All Burns products and services are available no matter what your volume or where you are. They can mean enhanced profits to you, whether you're moving, modernizing, expanding, or just getting started. When you "buy Burns", you can feel sure you're acquiring a combination of modern technology, quality construction and economical operation.



Split-Nut Blancher



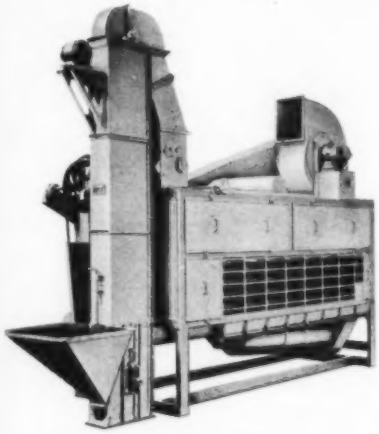
Recirculating Cleaner



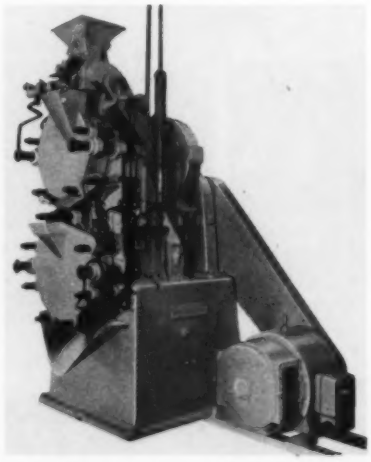
Continuous Roaster for Peanuts or Cocoa Beans

Peanut Butter Mill

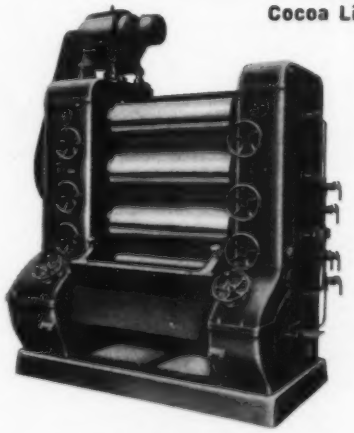
EFFICIENT, ECONOMICAL MACHINERY



Cracker and Fanner



Cocoa Liquor Mill



Chocolate Refiner

FOR COCOA BEANS

On all six continents, Burns Raw Cocoa Cleaners, Continuous Thermalo Roasters, Batch Roasters, Cracker and Fanners, bean and nib storage and conveying systems insure efficient, trouble-free production.

FOR CHOCOLATE AND CONFECTIONS

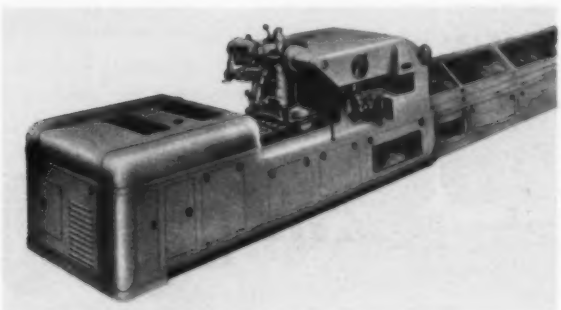
In the United States, Burns combines its own cocoa bean and nut machinery with the equipment of three other companies:

Baker Perkins (Exports) Ltd. of London, England is a world leader in design and production of Cocoa Liquor Mills, Chocolate Refiners, Conches, Enrobers and other confectionery machines.

A. Savy Jeanjean & Cie. of Courbevoie, France is a pioneer in Automatic Chocolate Molding Plants for all types of molded goods, as well as Chocolate Processing Machinery and high-speed Starch Molding equipment.

N. V. Vormenfabriek of Tilburg, Holland is the world's foremost supplier of chocolate molds and offers a full line of high quality molds.

Burns thus provides complete equipment for the chocolate and confectionery trades — and plant layout and engineering service second to none.



Automolda for Molded Chocolate

BURNS EQUIPMENT SERVES MANY FOOD FIELDS

Burns is well known for coffee, tea, peanut and cocoa bean machinery, but our products and services extend into many other phases of food processing.

The shelves shown on this page contain some of the products which have been roasted in Burns machines. In addition, there are many more products in the processing of which Burns cleaning, grinding, blending and conveying equipment is playing a useful part. Burns elevators, bin assemblies and collection systems have been engineered for still more applications; and Burns Smoke Eliminators, too, are in use on a number of processes.

Burns engineering and technology may have the answer for some of the processing problems confronting you — where perhaps you have not thought of Burns as a possible source of help.

We cannot promise an answer every time, but you can be sure that all of our wide experience and technical know-how will be brought to bear on your needs.

JABEZ BURNS AND SONS, INC.

ENGINEERS

NEW YORK 600 West 43rd St.

CHICAGO • DALLAS • SAN FRANCISCO

N

NOW...THE NEW TRAYMASTER CARTON FORMER!

At H. B. Reese Candy Company, these two tray sizes are formed on a TL-100 and overwrapped in printed cellophane by a Package Model FA.

Forms and Glues a Wide Variety of Cartons Without Messy Glue

Package's new TL-100 Traymaster produces cartons using the widest variety of board stocks, including polyethylene-coated and foil-lined. And with no messy glue! The TL-100 uses a rope-like thermoplastic adhesive that is automatically unwound from a spool, metered, melted and applied to the carton.

There's no glue pot to clean . . . no muss, no waste.

Occupying only 3 square feet of floor space, the TL-100 Traymaster is easily moved to the most convenient location. Available in three models for different carton sizes and speed ranges, the TL-100 will produce up to 100 cartons a minute in size ranges from 2" to 15" long, from 1⅝" to 11½" wide, and from ⅜" to 4" high. Only the simplest, least expensive blanks are required. Trays and cartons are formed with a smooth, unbroken inner surface, since the hinged flaps are sealed to the outside.

A single operator can tend several machines, needs only push the starting switches and keep the magazines supplied with blanks. For information about the money-saving, labor-saving TL-100 Traymaster, phone or write our nearest office.

PMMI

PACKAGE

PACKAGE MACHINERY COMPANY, EAST LONGMEADOW, MASSACHUSETTS

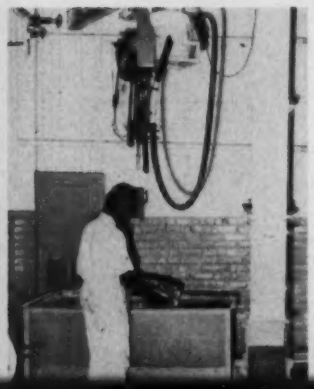
NEW YORK • PHILADELPHIA • ATLANTA • BOSTON • CLEVELAND • CHICAGO • KANSAS CITY
DALLAS • DENVER • LOS ANGELES • SAN FRANCISCO • SEATTLE • TORONTO • MEXICO CITY

How production was mechanized at VICKS MEDICATED COUGH DROPS

BY STANLEY E. ALLURED
Editor

Although the Cough Drop Department of Vick Chemical Company may contribute less than 10% of the company's dollar sales of $95 million, it probably accounts for nearly half of the Company's hundreds of millions of unit package sales. In any case, since profit is what counts, it can be assumed that the medicated candy operation holds its own with the other products that enabled the company to report a net income of 8.4% of sales.

The company has just about finished a modernization program in the Philadelphia cough drop plant that mechanized many of the manufacturing operations and substantially increased plant capacity. During the planning of this modernization program, Vicks had access to the manufacturing know-how from the dozen countries where the product is manufactured. In addition to the two plants in this country in Greensboro, North Carolina and Philadelphia, Vicks Cough Drops are made in Canada, two countries in South America, four in Europe, South Africa, Australia and the Philippine Islands.



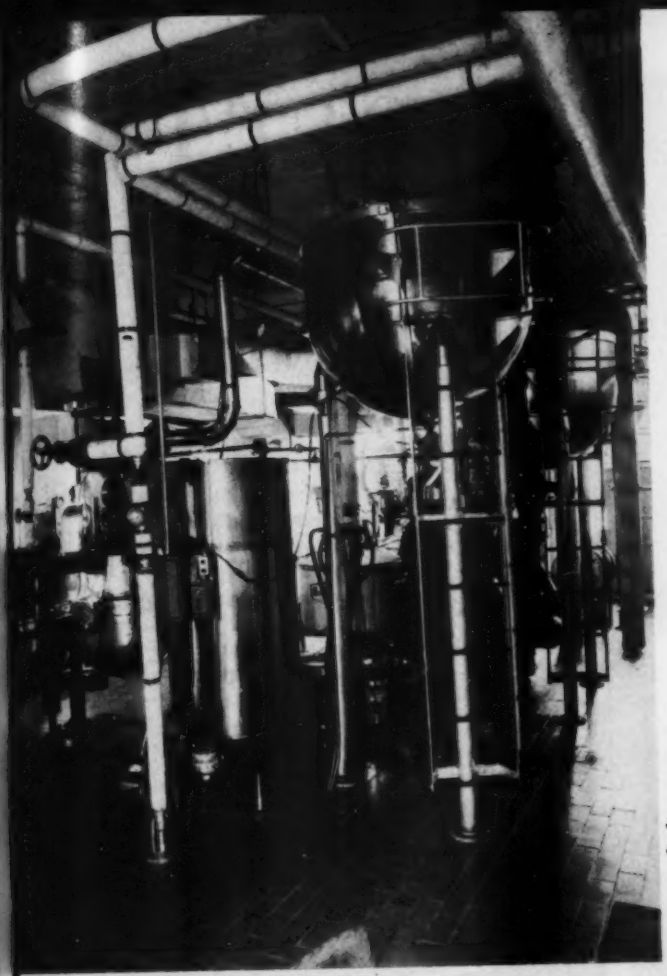
In a trip through this factory, we first stop at the sugar dump, shown in picture one. Sugar is received in bags and brought to the dumps on pallets. As it is dumped, the sugar goes from a screw to a bucket elevator up to the cooking floor above. Note the household type vacuum cleaner above. The seams of the bag are cleaned before the bag is thrown on the dump.

A bulk sugar installation is being studied at the factory, though its acceptance is dependent on decisions in other manufacturing operations.

Picture two shows the cooking area with the sugar elevator and tank on the far right. The elevated tanks hold corn syrup, sugar and reclaimed syrup. Out of the picture on the right are Brown Instrument recorders that continuously chart time, temperature and vacuum on each cooker. Visual gauges on each cooker also give the operator the same information. The rotary vacuum pump for the near cooker is shown at the lower left.

The Hansella 126-B dissolver is shown in picture three. It takes dry sugar, reclaimed syrup and corn syrup; proportions them continuously according to the formula set up in the control gears. The sugar is dissolved and mixed with the corn syrup and reclaimed syrup, continuously, and is precooked ready for the vacuum cooker. The sugar metering apparatus is directly behind the dissolver. The hand wheel at the lower front of the unit allows the operator to change the capacity of the unit while keeping all ingredients in the proper proportion. The small tank at the lower center operates as a reservoir between the dissolver and the vacuum cooker and holds the syrup at 240 degrees, as the cooker takes it in batches.

The full battery of two dissolvers and Hansella 145-A vacuum cookers is shown in picture four.



2

3

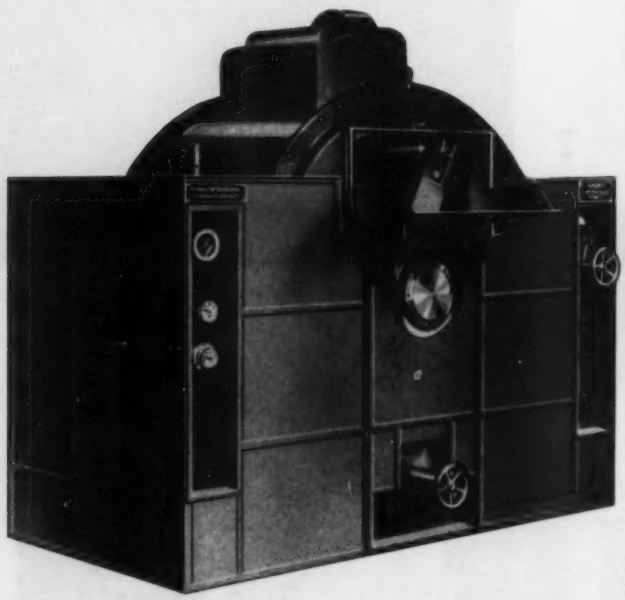
4

THOUET

CIRCULATION FRICTION CONCHE

The logical development of the old system.

- develops the mass to the highest perfection
- working time enormously reduced
- greatest possible aeration of the mass
- moisture removal previously unattainable
- suitable for all quality production
- excellent references



Type SV-1500 = 1½ tons capacity

Type SV-2500 = 2½ tons capacity

Other famous THOUET products:

Longitudinal Friction Conches, Five Roll Refiners, Three Roll Refiners, Four Roll Cocoa Refiners, Storage Tanks and Chocolate Pumps

Write today for full information:

THOUET MASCHINENBAU • AACHEN

Possessors Franz and Rudi Knops

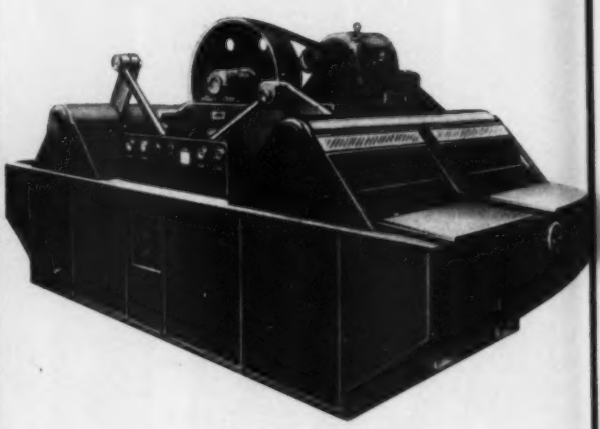
Hickelweg 21 **Rhineland / Germany**

THOUET

LONGITUDINAL FRICTION CONCHE

The approved and economical machinery!

Satisfied customers– Best references



Type C-4000 = 4 x 1000 kg capacity

Type C-2000 = 4 x 500 kg capacity

Other famous THOUET products:

Circular Friction Conches, Five Roll Refiners, Three Roll Refiners, Four Roll Cocoa Refiners, Storage Tanks and Chocolate Pumps

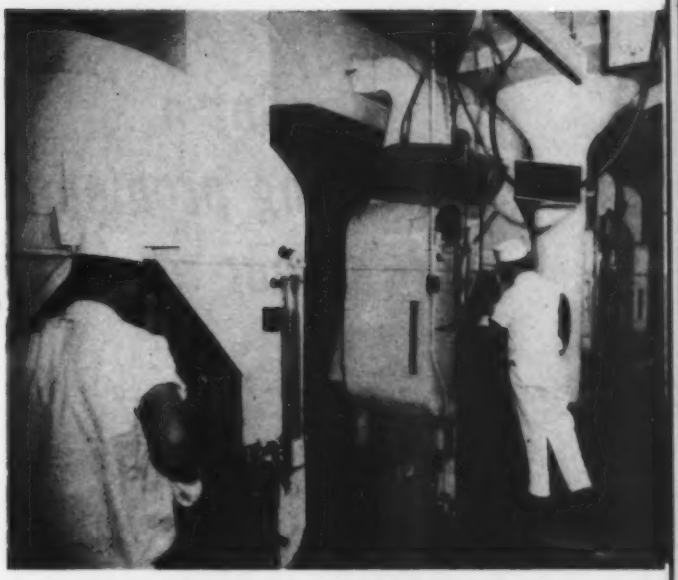
Write today for full information

THOUET MASCHINENBAU • AACHEN

Possessors Franz and Rudi Knops

Hickelweg 21 **Rhineland / Germany**

The cookers have an automatic timing device which controls the vacuum, the time of cook and the time between batches. This device also breaks the vacuum at the proper time and turns the kettles, starts the vacuum and starts the flow of syrup again. All of this operation is automatic from the dissolvers through the cookers and sets the output of this equipment at a fixed hourly rate.

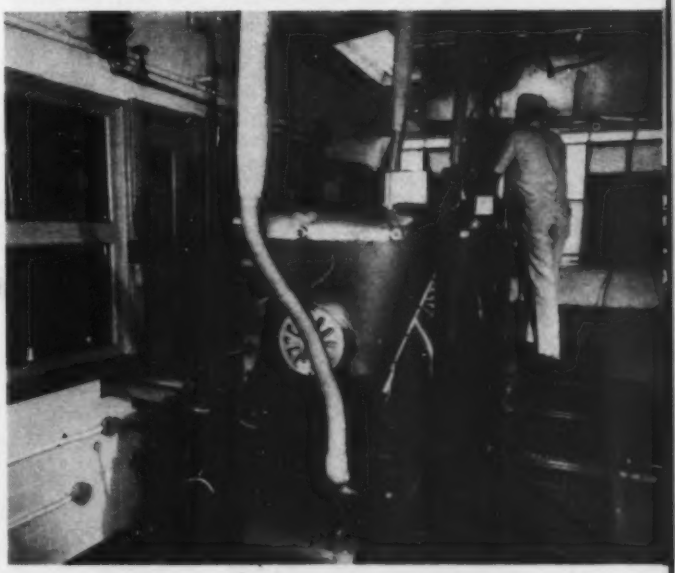


5

MIXING

Batches are dumped into cans that fit three-wheel dollies and are first wheeled to a scale. A record is kept of each batch which vary less than 2%. The batch is then wheeled to one of five covered Berks mixers, a distance of from 10 to 25 feet, depending on which kettle delivers to which mixer. The men tending each mixer gets his own batch from the cooker. This is the first direct manufacturing labor since the sugar dump on the floor below.

The mixers shown in illustration five are covered to keep the heat on the batch and away from the men, and are vented. The scoop bucket in the upper center of the picture is used to carry batches from the mixers to the forming lines. It has a pneumatic hoist and runs on a mono-rail over to the batch formers. Each mixer operator delivers his own batch to the spinners.



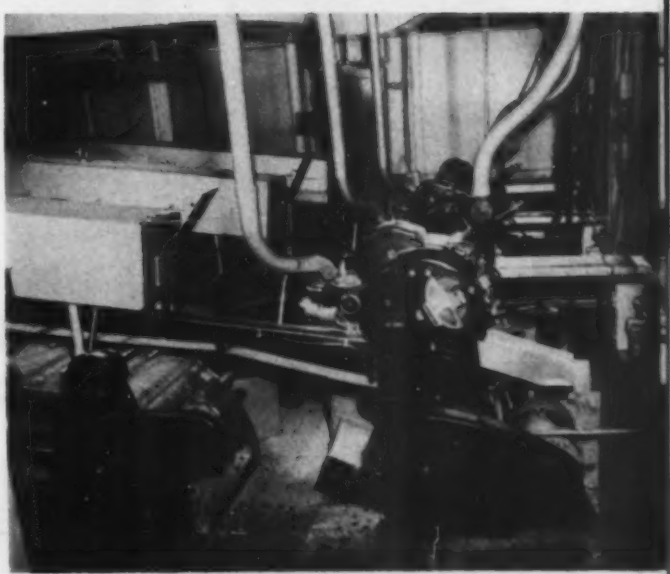
6

FORMING

Picture six shows a mixer operator dumping his batch into one of the three Hansella 73-E vertical spinners. The mono-rail from the mixers carry the batch directly over the spinners.

The three forming lines in picture seven are Hansella 85-A seamless tablet forming machines and 71-E three-tier coolers. Each forming machine turns out about 2700 tablets per minute. The coolers receive air at about 3000 cubic feet per minute at three inch static pressure conditioned to 60 degrees and about 40% relative humidity. The cooling room is only about 35 feet long, with the coolers and revolving sorting machines in this area. The sorters remove pieces from the line that are either over sized or under sized and send these back through the recovery system.

The cooled candy leaves the sorting machines and passes a three-girl inspection station. It then travels by overhead conveyors to the Packaging Department.



7

SYRUP RECOVERY

Picture eight shows the recovery system. The broken and misshapen candy pieces are dissolved and the resulting syrup distilled. The volatile matter is condensed in order to recover the medication. The syrup that is left is filtered on an Ertel

Got a coating problem? Here's your man!

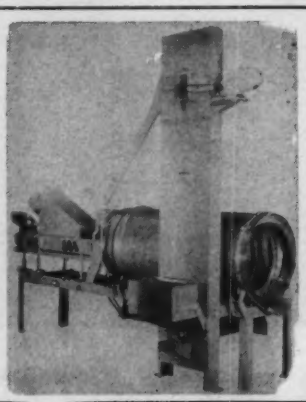
Al Garner's the kind of a guy who gets in trouble with his wife. For he has the boy scout's habit of scooting off to help any candy maker who sends out a distress signal. And whether the trouble lies in temperature control, cooling or enrobing, Al usually comes up with the right answer fast.

When he's not looking over your shoulder, Al's in the plant looking over ours. He never lets us forget that Wilbur-Suchard's reputation has been built by people who care about quality; people who sell through service.

Got a coating problem? Call Al Garner.

Introducing Al Garner to prove our point: *when it comes to quality, people mean more than machines.*

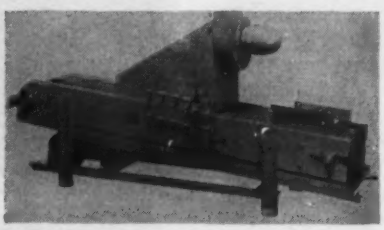
WILBUR-SUCHARD CHOCOLATE CO., INC. Lititz, Pa. Madison 6-2154



THE LATINI SUGAR SANDING SYSTEM

Latini Sander and Supplementary Steamer

MODERN ● SANITARY ● PRODUCTIVE



Guaranteed to properly sand the full output of a mogul!

Enlarged steaming chamber. Non-corrosive metals wherever steam and sugar meet.

Supplementary steaming brings out the natural brilliancy of sugar crystals and forms a protective film simulating crystallized candies.

← **LATINI DECORATOR**

Saves Labor—eliminates from 2 to 6 strokers per enrober.
Versatile—variable speed drive, elevation control and 3 sets of decorating belts make a wide variety of markings.

→ **LATINI CHOCOLATE SPRAYING SYSTEM**

Unexcelled for Panned Goods and Pre-Building for Enrober. 1000 lbs. per pan per day.

John Sheffman, Inc. **152 WEST 42nd STREET NEW YORK 36, N. Y.**

unit with filter paper coated with activated charcoal and diatomaceous earth, The cleaned and purified syrup is then fed back through a cooking operation as previously described.

WRAPPING

Picture nine shows the Redington type 9H9 Form, Fill and Closing machines that carton the cough drops. Each machine has a surge hopper holding about a half hours supply of candy. Collapsed cartons fed from a magazine and wax paper for the liners is on rolls. The Redington feeds cartons from the magazine, opens them, closes the bottom and forms, seals and inserts the waxed paper liner. It then counts out 17 cough drops, inserts them in the box, folds, seals the liner, and closes the box.

These new machines, each of which replaced two older models, turns out 125 packages each per minute. They are equipped with check weighers which reject any package one piece short. They also code date the end panel of the package.

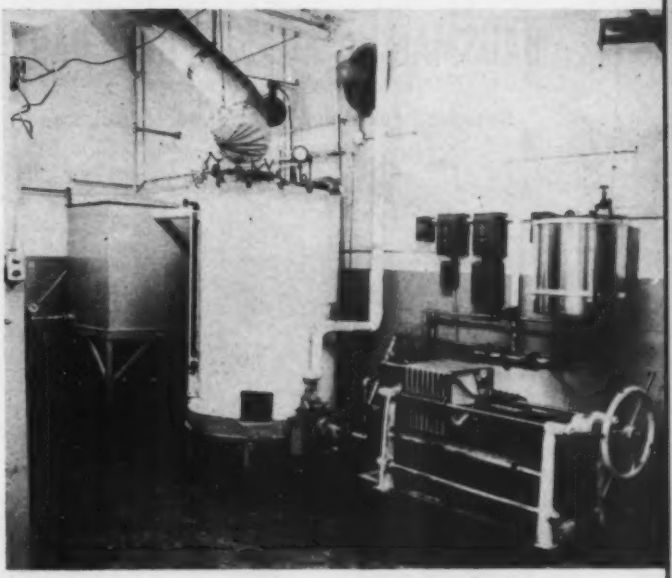
The closed boxes are then delivered to Scandia wrappers, picture ten, that put a cello overwrap on the package. The wrap is side sealed with a zip tape, which uses the minimum amount of cellophane per package.

The five lane belt feeds a Jones cartoning machine that automatically puts twenty boxes into a carton. Picture eleven shows the cartons as they are leaving the Jones machine and passing through a RCA metal detector.

For distribution in this country the cartons get a single waxed paper overwrap while export merchandise gets a double overwrap.

This is an outstanding example of a highly mechanized line for candymaking, that takes fullest advantage of the most efficient machinery available.

8



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11

BAUSMAN *Water-Sealed* **PUMP BARS**

NO GROOVES • NO WASHERS

Designed for accurate, cleaner depositing

Made of finest quality bronze with stainless steel pistons, Bausman pump bars are precision made to insure trouble-free operation.

Available in all sizes, single, double, triple and quadruple for Mogul and all types of depositors.

Write for details and prices.

MILL RIVER TOOL CO.

38 CASS STREET, SPRINGFIELD, MASS.

OR JOHN SHEFFMAN, 152 WEST 42nd ST., NEW YORK CITY

Speed Makes The Difference!

450 CARAMELS CUT and WRAPPED EVERY MINUTE

with IDEAL HI-SPEED WRAPPING MACHINE

Speed that's always dependable — Safety than can be counted on — maximum production at least cost—that's the Ideal Special Caramel Wrapping Machine!

Only 2 personnel required for this entirely automatic operation.

Write today for FREE Brochures.

IDEAL WRAPPING MACHINE COMPANY

MIDDLETOWN, NEW YORK, U.S.A.

New Products

A new heat-sealable polyester film that looks like aluminum foil but can be flexed almost indefinitely without affecting film properties has been developed. It is a metalized version of a standard heat-sealable polyester film. It is designed specifically for packaging applications where both low water vapor and gas permeability and appearance are important factors. Its water vapor permeability is approximately 1/30th of polyethylene. It retains its properties in a temperature range of -70°F. to 230°F.

For further information write: Minnesota Mining and Manufacturing Company, 900 Bush Street, St. Paul 6, Minnesota.

A sample box of candies is available that are made up from 14 formulas, all of which contain Hyfoma, a whipping agent. Each of the candies are marked with its formula, and an enclosed booklet contains processing information on each piece. Most of the pieces are samples of filled hard candy and caramels.

Sample boxes are available from Lenderink & Co., Westerkade 30, Schiedam, Holland.

"47 ways to increase sales with a premium coupon plan" is a new brochure that contains a comprehensive listing of marketing, selling, advertising and promotional problems that can be solved with a premium coupon plan. Situations discussed include, "Guaranteeing Repeat Business," "Increasing Use of Displays," "Switching Customers to Your Brand," "Reviving Dead Accounts," "Pushing Slow Inventory," etc.

For a copy write; the Premium Service Company, Inc., 195 North Street, Teterboro, New Jersey.

A poly side weld bag making machine has been developed that features clean edges, no skirts, easy opening, and minimum film use per bag. Speeds are around 130 per minute from tubing and 65 from flat stock. Minimum sizes are 3" length by 4" width; maximum are 24½" length and 20" width.

For further information write; FMC Packaging Machinery Division, 534 23rd Ave., Oakland 6, California.

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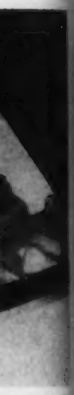

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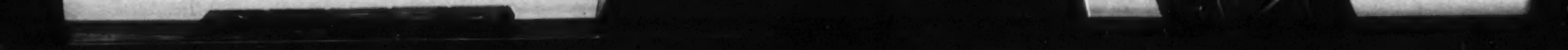

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PETER'S
SUPERLATIVE
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The delicacy of the superior flavor that denotes quality is the prime consideration at Nestlé's, makers of the finest in coatings through unvarying, rigidly applied standards of Quality Control.
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NESTLÉ'S®
THE NESTLÉ COMPANY, INC.
2 WILLIAM STREET • WHITE PLAINS, N. Y.
® Trade Mark Reg.

Supply field news

The American Sugar Refining Company has announced that they are entering the field of supplying mixed syrups in the East. Various blends of liquid sugar and corn syrup are available from their Brooklyn, Philadelphia and Baltimore refineries.

American now joins Pennick and Ford and Refined Syrups and Sugars in supplying syrups to the New York City area. American, however, has now extended the territory for mixed syrups into the Philadelphia and Baltimore areas.

Walter Baker Chocolate has appointed Thomas G. Churchill, formerly Bulk Sales Manager, as New England Bulk sales Representative. Churchill has been with the firm since 1947 and for the past three years has been Sales Manager for bulk products.

He succeeds Harry W. Thomas, who retired the first of this year after more than 20 years representing the firm.

Raymond G. Schnyer, formerly assistant to Mr. Churchill will take over his duties as Bulk Sales Manager.

Daniels Manufacturing Company has appointed Leo W. Schumaker as Regional Manager in the Central Division operating out of Chicago. For the past seven years, he has been selling for American Viscose Corp. He succeeds Charles J. Holderby, who has been transferred to the Midwest territory.

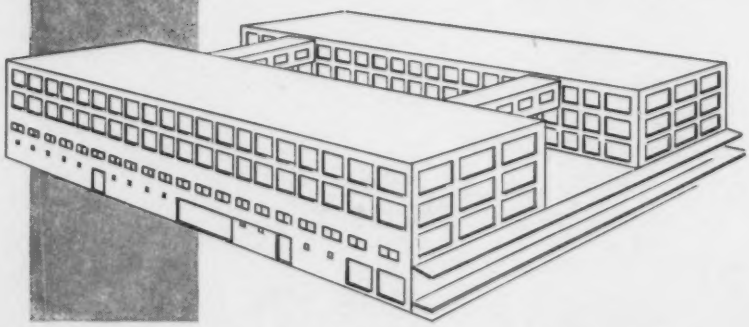
Hansella Machinery Corporation has appointed Connie Cockinos as general sales manager for the firm's candy processing and packaging equipment. Cockinos was formerly manager of the confectionery machinery division of J. W. Greer Company, where he was connected for five years. Before that he was staff assistant to the sales manager at the Walter Baker Chocolate Division.

Henry H. Ottens Manufacturing Company, suppliers of flavors, colors and specialties, has opened a New England office in Boston. This office will be under the direction of **George C. Robinson, Jr.,** the firm's New England manager.

Dairyland Food Laboratories, basic manufacturers of enzyme preparations, have started building operations in Waukesha, Wisconsin. It will provide five times the space previously occupied, and permit substantial enlargement of research laboratories and the installation of a pilot plant.

MERCKENS

Makers of Fine Chocolate and Cocoa



MERCKENS CHOCOLATE COMPANY, INC.

155 Great Arrow Avenue, Buffalo 7, New York

BRANCHES AND WAREHOUSE STOCKS IN

BOSTON, NEW YORK, CHICAGO, LOS ANGELES, OAKLAND, SALT LAKE CITY, SEATTLE

Visit our display at the Philadelphia Candy Show, Benjamin Franklin Hotel, January 26-28, 1958

Technical Literature

chocolate. Investigations were carried out on the usual method of cooling curves to determine the extent of crystallisation in a fluid chocolate. It was found, however, that it was impossible to obtain reproducable results with this method.

Significant and reproducable results were obtained by retaining the usual cooling curve method but interpreting a different portion of the cooling curve. On this method, the portion of the curve between 29 degrees C (84.2 degrees F) and 26 degrees C (78.8 degrees F) is used in the determination. A straight line is drawn to fit as closely as possible the points between these two temperatures. They are usually very nearly in a straight line. This line is arbitrarily extended in both directions, a ratio is determined based on the slant of this line from the vertical.

This ratio is a purely imperical measurement and is valid only for the equipment procedure and coating from which it was originally derived.

It was found that the ratio of this line was in very close agreement with the quantity of temper or crystallisation in a chocolate.

An Investigation on Polyphenolic Compounds of Cacao Leaf in Connection with a Chemical Method for Detecting Virus Infection

M. Holden, Jour. of the Science of Food and Agri., Vol. 8, No. 10 (1957) –Polyphenolic substances in acid extracts of cacao leaves have been separated by paper partition chromatography. The substance which gives a red color when the leaf extracts are heated with alkali, a reaction which has been used as the basis of a "color test" for detecting infection with swollen shoot virus, has the properties of a leuco-anthocyanin. In addition to virus infection, other factors affect the leuco-anthocyanin content. The bearing of this on the applicability of the color test is discussed in this eight page article.

Measurement of Chocolate Temper

R. J. Motz, Mars Laboratories, England, International Chocolate Review November, 1957. Investigations were carried out to find a method of determining the quantity of temper in

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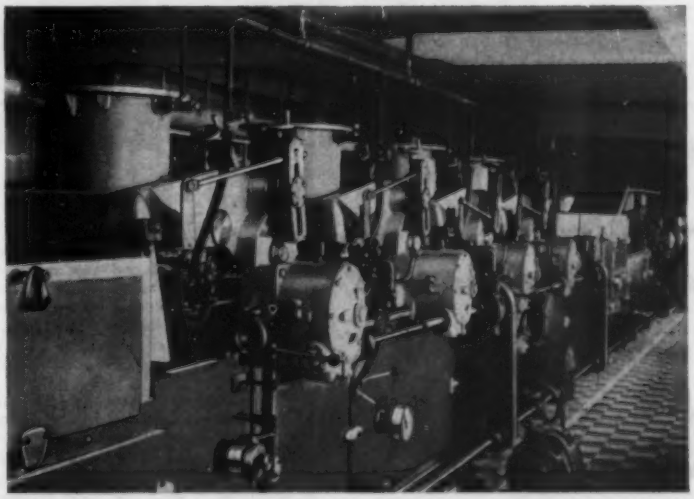
FULLY AUTOMATIC

MOULDING PLANTS



FULLY AUTOMATIC PLANT WITH FOUR CENTRE-DEPOSITORS FOR EIGHT DIFFERENT FILLINGS. This plant is also designed for production of Easter Eggs with two different centres.

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–PERFECT GOODS
–UNSURPASSED VERSATILITY
–DURABILITY
–LABOR SAVING

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25 BLEGDAMSVEJ COPENHAGEN Ø DENMARK
220 W. 42nd STREET, Room 2010, NEW YORK 36, N. Y.
1415 ST. MARK STREET, MONTREAL, QUEBEC, CANADA

IMITATION CANDY BY

KNECHTEL LABORATORIES
1051 W. Berwyn St. • Chicago 40, Ill.
CONSULTANTS TO THE CANDY INDUSTRY

On the Configuration of Cocoa Butter

E. S. Lutton, Jour. of the Amer. Oil Chem. Soc., Vol. 34, *No.* 10 (1957)—From X-ray diffration, thermal curve and enzymatic hydrolysis studies, the conclusion was reached that the predominant glyceride of cocoa butter is 2-oleoyl palmitoyl stearin instead of 2-palmitoyl oleoyl stearin, the configuration previously accepted. The suggestion is made that a fully satisfactory cocoa butter extender should be largely of symmetrical, disaturated configuration to preserve the characteristic beta-3 form of cocoa butter.

Flavor Permeability in Food Packaging and Its Evaluation

M. Karel, B. E. Proctor, A, Cornell, Food Tech., Vol. 11, *No.* 3 (1957)—A method for the estimation of the permeability of packaging materials (metal foil, variously coated cellophanes, polyethylene, mylar, and saran films) to organic vapors was developed and tested. This procedure offers a rapid and accurate method for comparison of films based on their permeability to ethyl alcohol, acetone and trimethylamine vapors but further studies are needed to check the method's precision and to correlate permeability results with organoleptic evaluation of odor and flavor transfer.

Properties of the Synthetic Sweetening Agent, Cyclamate

Karl M. Beck, Food Tech., Vol. 11, *No.* 3 (1957)—This three-page article discusses the properties of calcium and sodium cyclamate.

The Composition of Bloom Fat in Chocolate

J. Cerbulis, C. Clay, C. H. Mack, Jour. of the Amer. Oil Chem. Soc., Vol. 34, *No.* 11 (1957)—The composition of the fat which has bloomed in chocolate has been studied. Evidence shows that the type of center coated has no effect upon the fatty acid composition of the bloom fat, but the rate of blooming was found to be affected by the center. The theory that oils in coated nuts migrate to the chocolate surface causing fat bloom has been disproved. Comparison of the fatty acids present in the bloom fat with respect to the coating fat show a decrease in the unsaturated acids and an increase in the saturated acids. There is evidence that hydroxyl-containing oxidation products of the fatty materials in the chocolate are absent in the migrated fat. Nine coated candies comprising three groups (oil-containing, high moisture, and low moisture) were studied.

Effect of Antioxidants on the Stability of Orange Oil

W. M. Gearhart, B. N. Stuckey, E. R. Sherwin, Food Tech., Vol. 11, *No.* 5 (1957)—Data presented show that BHA or BHT effectively stabilize D-limonene and orange oil with BHA showing slightly better results. The addition of 0.02% BHA resulted in about a 5-fold increase in the keeping quality of the oil under all test conditions.

Cacao Glycosidase and Color Changes During Fermentation

W. G. C. Forsyth, V. C. Quesnel, Jour. of the Science of Food and Agri., Vol. 8, *No.* 9 (1957)—The first stage in the destruction of the anthocyanin pigments in cacao beans during curing is the hydrolysis by a glycosidase. The relevance of this reaction to the quality of the processed bean is discussed. In this four and one-half page article, the nature

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. . . has the appearance and performance you need
Now "Problem" Belts become "Problem" Free
• For Conveying
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BURRELL STARS

★ Endless Feed and Bottomer Belts (Plain or "Hy-Car" Treated)

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★ Innerwoven Cotton Conveyor Belts

★ Fabric and Rubberized Belts for Packaging Equipment

"IF ITS BELTING WE HAVE IT"

"Burtek" incorporates the latest developments in Neoprene and "Hy-Car" compounding and engineering. Most Rubber Conveyor belts may look alike—but they do not all serve alike. You receive the greatest return for your investment if you specify . . . insist on . . . Burrell "Burtek" Belting.

Highly resistant to oils, grease and heat conditions because its fabric plies are amply protected by top quality Neoprene and Hy-Car friction and skin layers. The top cover of "Burtek" belting is comprised of odor and taste resistant smooth "stay-clean" Hy-Car or Neoprene. Lightweight type duck of high tensile strength results in a thinner, more flexible belt, ideal for operation over extremely small pulleys or nosebars. Available in pure white or Tan—widths and plies as required—get in touch with your Burrell sales engineer. He's as near as your phone. Let him tell you more about the Burrell line.

"Customer Life" is traditionally longer at Burrell. It is the basis for our existence. It's always worth your while to talk with a Burrell man before purchasing any belt.

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Atlanta, Ga.	Drake 3-0742
Cleveland	Whitehall 2-0481

BURRELL

BELTING CO. 7501 N. St. Louis Ave., Skokie, Illinois

of the enzymic reaction and the reason for its slowness, contrasting markedly from the rapid browning by polyphenol oxidase when air is admitted, forms the subject matter.

De-Oiling of Peanuts to Yield a Potentially Useful Food Product

R. K. Willich, R. O. Feuge, Food Tech., Vol. 11, *No.* 6 (1957)—In this four page article, de-oiled or partially de-oiled peanuts prepared by soaking in a suitable solvent at ambient temperatures are considered suitable as an ingredient for low-caloric foods. The whole, blanched, treated peanuts resemble the ordinary product to some degree in appearance and flavor although the flavor is relatively mild.

Microbiological Examination of Liquid Sugar Using Molecular Membrane Filters

M. C. Coleman, C. R. Bender, Food Food Tech., Vol. 11, *No.* 7 (1957)—Conventional plating methods for checking yeast population in liquid sugar require an incubation period of 4 to 5 days before results are obtainable. A membrane filter method is described in detail in this article which gives results in 28 hours.

Incorporation of Natural Fruit Flavors Into Fruit Juice Powders
2. Concentration and Locking of Concord Grape Flavor

K. P. Dimck, T. H. Schultz, B. Makower, Food Tech., Vol. 11, *No.* 12 (1957)—An experimental procedure is detailed in which the volatile flavoring component of Concord grape juice was recovered, concentrated, and locked in. Concentration of the flavoring component up to 330-fold showed no alteration in flavor.

Trihydroxybutyrophenone—A Food Grade Antioxidant

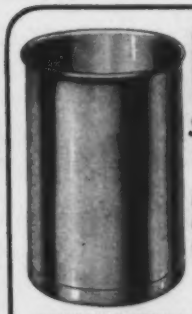
B. N. Stucker, W. M. Gearhart, Food Tech., Vol. 11, *No.* 12 (1957)—This article describes the chemical and physical properties of a new antioxidant. It appears to be quite effective in products where an extremely potent agent is required to give satisfactory stability.

HAVING ? PRODUCTION ? PROBLEMS ?

KNECHTEL LABORATORIES

1051 W. Berwyn St. • Chicago 40, Ill.

Consultants to the Candy Field



STANcase EQUIPMENT

STAINLESS STEEL DRUMS

MODEL 30--30 GAL.
MODEL 55--55 GAL.
(Covers available)

ECONOMY EQUIPMENT

RUGGEDLY CONSTRUCTED FOR LIFE TIME WEAR.
FULLY APPROVED BY HEALTH AUTHORITIES.

Manufactured by
The Standard Casing Co., Inc.
121 Spring St., New York 12, N. Y

MAXIMUM COVERAGE

from each pound of coating

Are you sure that you are covering as many centers from each pound of coating as possible? Many manufacturers are not and don't realize it.

Only the Stehling Mixer gives you a large supply of liquid chocolate, properly melted, properly manipulated, and held in suspension ready for the most economical coating operation.

Chocolate manufacturers use the Stehling Mixer as an emulsifier. The manufacturing confectioner also needs the emulsifying action to provide his enrobers and dippers with chocolate of original and uniform viscosity.

You can save money on coatings with a Stehling. Write today for particulars.

CHAS. H. STEHLING CO.

1303 N. FOURTH STREET • MILWAUKEE 12, WISC.

Factory Representative: G. B. Hislop
1517 Grange Ave., Racine, Wisc.

The MANUFACTURING CONFECTIONER'S

Candy Clinic

The Candy Clinic is conducted by one of the most experienced superintendents in the candy industry. Some samples represent a bona-fide purchase in the retail market. Other samples have been submitted by manufacturers desiring this impartial criticism of their candies, thus availing themselves of this valuable service to our subscribers. Any one of these samples may be yours. This series of frank criticisms on well-known branded candies, together with the practical "prescriptions" of our clinical expert, are exclusive features of The MANUFACTURING CONFECTIONER.

Holiday Packages; Hard Candies

end of the stick). Five sections. Cellu-

Code 1B8
Chain of Pops
1½ ozs.—10¢
(Purchased in a department store, Chicago, Ill.)

Appearance of Novelty: Good
Container: Cellulose chain about one yard long, contained 10 small hard candy balls spaced about five inches apart. Purple and blue paper seal on one end printed in white.
Candies:
Colors: Good
Texture: Good
Flavors: Fair

Remarks: Should be a good seller with the kids for 10c.

Code 1C8
Dumbell Pops
2¾ ozs.—10¢
(Purchased in a 5c and 10c store, Chicago, Ill.)

Appearance of Novelty: Good
Container: Pops are made as follows: two pops on one stick (one on each lose was a long tube about one yard long. Light board seal on one end printed in red, yellow and white.
Pops:
Colors: Good
Texture: Good
Flavors: Fair

Remarks: Should be a good seller with the kids; looks like a large amount of pops for 10c.

Code 1A8
Assorted Crystalized Creams For Christmas
6¼ ozs.—49¢
(Purchased in a department store, Chicago, Ill.)

Appearance of Package: Good
Container: Oblong tray, foiled. Overall cellulose wrapper, gold foil seal printed in red.
Candies:
Red Bells: Good
Red, White & Green Stars: Good
Green & Red Leaves: Good
White Santa Claus: Good
Green & Red Gum Strings: Good
Colors: Good
Texture: Good
Crystal: Good
Flavors: Good
Molding: Good

Remarks: The best box of this type we have examined this year. Very fine workmanship. Neatly packed. Should be a good seller at 49c.

Code 1D8
Cellulose Wrapped Stuffed Confections
1 lb.—69¢
(Purchased in a department store, Chicago, Ill.)

Sold in Bulk: Pieces are wrapped in printed cellulose wrappers.
Confections:
Colors: Good
Stripes: None
Gloss: Good
Jacket: Good
Centers: Good
Flavors: Fair

Remarks: Cheaply priced at 69c the pound.

Code 1E8
Bittersweet Chocolate Holly Leaves
3½ ozs.—$1.00
(Purchased in a department store, Chicago, Ill.)

Appearance of Package: Good
Box: One layer type, white paper top printed in green, red and gray. Name embossed in gold. Extension top and bottom. Cellulose wrapper.
Appearance of Box on Opening: Good
Leaves: Each leave had three red holly buds near the bottom.
Molding: Good
Gloss: Good
Color: Good

Candy Clinic Schedule For the Year

JANUARY—Holiday Packages; Hard Candies
FEBRUARY—Chewy Candies; Caramels; Brittles
MARCH—Assorted Chocolates up to $1.15
APRIL—$1.20 and up Chocolates; Chocolate Bars
MAY—Easter Candies; Cordial Cherries
JUNE—Marshmallows; Fudge
AUGUST—Summer Candies
SEPTEMBER—Uncoated & Summer Coated Bars
OCTOBER—Salted Nuts; Gums & Jellies
NOVEMBER—Panned Goods; 1¢ Pieces
DECEMBER—Best Packages and Items of Each Type Considered During the Year.

Winter and Summer...

more and more people are reaching for confections with coatings made with Durkee's Paramount

Successful confection manufacturers are specifying coatings made with Durkee's Paramount for greater year 'round customer satisfaction. You'll find that coatings made with Paramount vegetable hard butters give your product real eye appeal... real taste appeal.

Ask your regular supplier about coatings made with Durkee's Paramount—available in varying degrees of hardness to meet specific requirements of all types of confections, all types of climate conditions—Winter and Summer. Durkee's trained specialists will be glad to show you how best to use Paramount coatings for your own operation.

Coatings made with Paramount are famous for:

- ***High Gloss Retention***
- ***Greater Bloom Resistance***
- ***Greater Stability***
- ***Longer Shelf Life***
- ***Year 'Round Top Performance***

DURKEE'S PARAMOUNT

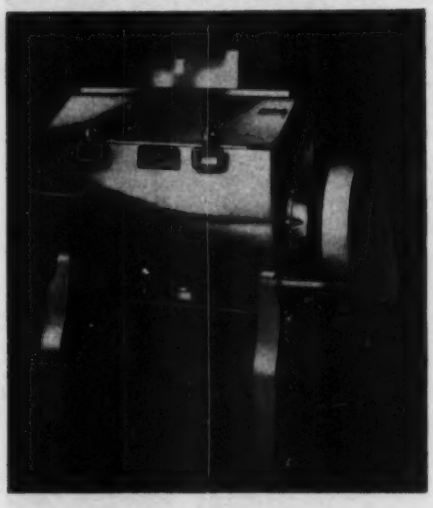
LOUISVILLE, KENTUCKY • CHICAGO, ILLINOIS • BERKELEY, CALIFORNIA • NEW YORK, NEW YORK

Glidden

for Better Marshmallows

the SAVAGE BEATER

. . . . IS YOUR ANSWER. The Savage latest improved sanitary marshmallow beater is constructed with stainless steel tank, shaft, paddles and breaker bars—100% sanitary. This beater is considered standard by manufacturers. Built for strength and durability, it assures perfect manipulation of each batch. Hundreds of users in the United States and foreign countries prefer the Savage Beater for its economy in operation and performance in production, because it saves time, space, and operating cost. Four 200 pound Savage Beaters will supply a mogul for continuous operation.



THE FIRST COST IS THE LAST COST

- **Unexcelled for volume and lightness**
- **Stainless construction—100% sanitary**
- **No corners for contamination**
- **Outside stuffing boxes—no leakage possible**
- **Maximum beating for volume**
- **Faster heat discharge from batch**
- **Creates volume suction of cold air**
- **Larger water jacket for quick cooling**
- **6″ outlet valve for quick emptying**
- **Less power needed with roller bearings**
- **Large two piece air vent—sanitary**
- **Direct motor drive**
- **Sizes available: 150 lb. or 80 gal. capacity**
  200 lb. or 110 gal. capacity

SAVAGE oval type marshmallow beater also manufactured with stainless water jacket, galvanized cast iron heads, paddles and breaker bars.

Since 1855

SAVAGE BROS. CO.

2638 Gladys Ave. Chicago 12, Ill.

Texture: Good
Taste: Good

Remarks: Highly priced but a different kind of chocolate novelty. A good quality of chocolate. Very fine molding and should be a good seller for the holidays.

Code 1F8
Assorted Cream Mints
12 ozs.—$1.65
(Purchased in Chicago, Ill.)

Appearance of Package: Good
Container: Gold papered oblong tray. Gold seal printed in black. Acetate top, name embossed in gold. Plain chip board carton.
Mints:
Coffee Sugar Cream in Paper Cups:
Color: Good
Flavor: Good
Texture: Good
Tangerine Sugar Wafer:
Color: Good
Flavor: Good
Texture: Good
Lemon Cream Wafers:
Color: Good
Texture: Good
Flavor: Good
Vanilla Creams in Paper Cups:
Color: Good
Texture: Good
Flavor: Good
Mint Sugar Wafers:
Color: Good
Texture: Good
Flavor: Good
Color: Good
Coffee Sugar Wafers:
Texture: Good
Flavor: Good
Mint Cream in Paper Cups:
Color: Good
Texture: Good
Flavor: Good

Remarks: A good eating confection. Flavors could be a trifle stronger. Very highly priced at $1.65 for 12 ozs.

Code 1G8
Candy Canes
About 1 oz.—5¢
(Purchased in a department store, Chicago, Ill.)

Appearance of Cane: Good

COLORED COATINGS

Add color to your package!

Bon bon coatings in pink, green, peach, yellow and white.

Nu Coat
Bon Bon
Company
4338 N. Western Avenue
Chicago 18, Illinois

Container: Each cane in a cellulose bag.
Cane:
Size: Good
Stripes: Good
Shape: Good
Gloss: Good
Texture: Good
Flavor: Good

Remarks: A well made 5c cane.

Code 1H8
Lime Hard Candy Cuts
8 ozs.—39¢
(Purchased in a department store, Chicago, Ill.)

Appearance of Package: Good
Container: Round, acetate, gold foil seal on top printed in dark blue. Pieces are wrapped in cellulose wrappers.
Candies:
Color: Good
Texture: Good
Flavor: See remarks.

Remarks: Suggest again as much lime oil be used as flavor is very weak.

Code 1K8
Large—Peppermint Hard Candy Stick
2 ozs.—5¢
(Purchased in a chain drug store, Chicago, Ill.)

Appearance of Stick: Good
Stick: Stick is 8" by 3/4. Cellulose wrapper printed in red and blue.
Stripes: Good
Texture: Good
Flavor: Peppermint: Good

Remarks: The largest 5c hard candy stick we have examined this year. Well made and a good peppermint flavor.

Code 1L8
Candy Canes: 6 Canes
1.5 ozs.—10¢
(Purchased in a 5c and 10c store, Chicago, Ill.)

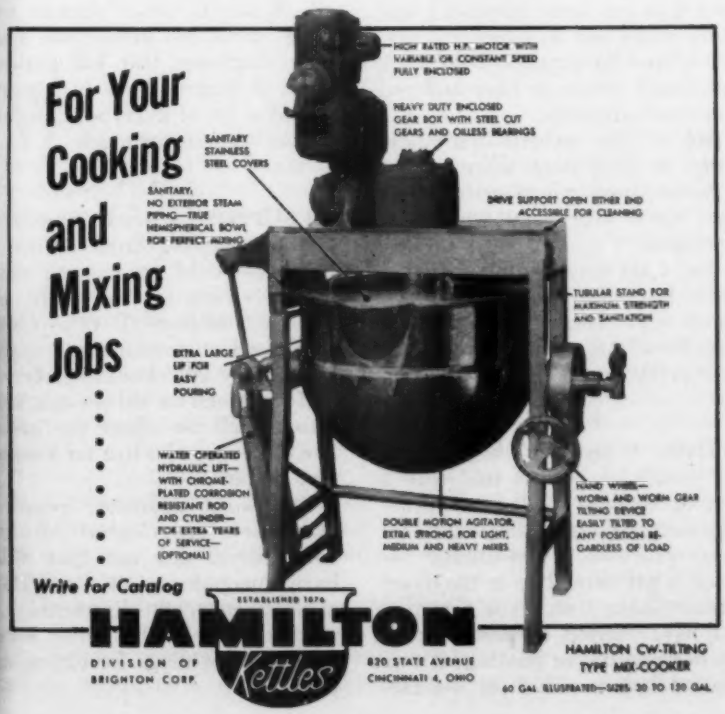
Appearance of Package: Good for a 10c seller.
Container: Folding box, green printed in white. Cellulose window. Each cane in a cellulose bag printed in white.
Canes:
Stripes: Good
Texture: Good
Flavor: Peppermint: Good

Remarks: The best cane package we have examined at this price. Good workmanship and neatly packed.

Code 1M8
Assorted Hard Candies
2 lbs.—$1.59
(Purchased in a 5c and 10c store, Chicago, Ill.)

Appearance of Package: Good
Container: Round tin can, slip cover. Printed in red, white and blue and yellow, green and chocolate. Imprint of pieces in colors. Light board sleeve printed.
Assortment:
Filled Straws: Good
Pillow: Good
Buttercups: Good
Chips Round and Long: Good
Solid Chips: Good
Solid Clear Shapes: Good
Colors: Good
Gloss: Good
Strings: Good
Jackets: Good
Centers: Good
Flavors: Good
Assortment: Good

Remarks: The best assortment of hard candy we have examined at this price. Very good quality and good workmanship.


For Your Cooking and Mixing Jobs
HIGH RATED H.P. MOTOR WITH VARIABLE OR CONSTANT SPEED FULLY ENCLOSED
HEAVY DUTY ENCLOSED GEAR BOX WITH STEEL CUT GEARS AND OILLESS BEARINGS
SANITARY STAINLESS STEEL COVERS
SANITARY; NO EXTERIOR STEAM PIPING—TRUE HEMISPHERICAL BOWL FOR PERFECT AGITATION
DRIVE SUPPORT OPEN EITHER END ACCESSIBLE FOR CLEANING
TUBULAR STAND FOR MAXIMUM STRENGTH AND SANITATION
EXTRA LARGE LIP FOR EASY POURING
WATER OPERATED HYDRAULIC LIFT—WITH CHROME-PLATED CORROSION RESISTANT ROD AND CYLINDER—FOR EXTRA YEARS OF SERVICE—(OPTIONAL)
DOUBLE MOTION AGITATOR, EXTRA STRONG FOR LIGHT, MEDIUM AND HEAVY MIXES
HAND WHEEL—WORM AND WORM GEAR TILTING DEVICE EASILY TILTED TO ANY POSITION REGARDLESS OF LOAD
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HAMILTON CW-TILTING TYPE MIX-COOKER
60 GAL ILLUSTRATED—SIZES 30 TO 150 GAL

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Personal service to 185 jobbers, super-markets and department stores. Backed by 26 years experience in the confectionery field. We call on every account personally every six weeks. Candy is our business.

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Confectionery Broker Representing Manufacturing Confectioners Since 1925
Territory: Pennsylvania excluding Philadelphia.

Ruark chews the candy critics

A syndicated column that appeared in 150 newspapers with a combined circulation of approximately 10,000,000.

WHATEVER became of candy?

Maybe I'm missing the ads, but I don't seem to run across the Whitman's Sampler prose so often any more, and there was a time when you weren't supposed to go courting without a box.

Where's O. Henry and Baby Ruth? What's with Milky Way and Mars Bars and Martha Washington? You see some Hershey's and Peter Paul's and an occasional praline around the airports down South but candy seems to have suffered a decline nationally.

Me, I like sweets. But there seems to have been some sort of organized propaganda against them ever since everybody went mad over diets.

And I am now reading a printed piece by some documented sawbones who claims that sweets reduce blood sugar and lay you open to everything from polio to Asian flu.

• • •

THIS, I just don't believe. All my young life I was told that a certain amount of carbohydrate was necessary to health, and that sugar provided a fast energy because it got burned up in the blood stream faster than most things.

I have carried a candy bar in my overseas bag or hunting kit ever since I had a nickel (or a dime) to buy one.

There seems to be some sort of conspiracy against sugar products engineered by the doctors and dentists, and it also seems to lack as much validity as all the claims and counter-claims about cigaret smoking.

• • •

THE CIGARET companies, who are now taking their lumps and are coming out with a new brand a minute, oddly and justly enough are reaping the wind. They were the first to jump foot-first on the candy industries.

Remember "Reach for a Lucky Instead of a Sweet"? which got enjoined down to "When Tempted to Overindulge, Reach for a Lucky Instead"?

I have a kind of serious objection to all this doctor-interference in man's natural tastes from a public relations standpoint.

A doctor or a dentist is, after all, only a kind of plumber-carpenter who works on the human frame, and he is subject to mistakes like all of us. A lot of doctors take dope, drink too much, and make bum diagnoses that kill patients. A lot of dentists have bad breath.

And a lot of everybody—including me—experts too much.

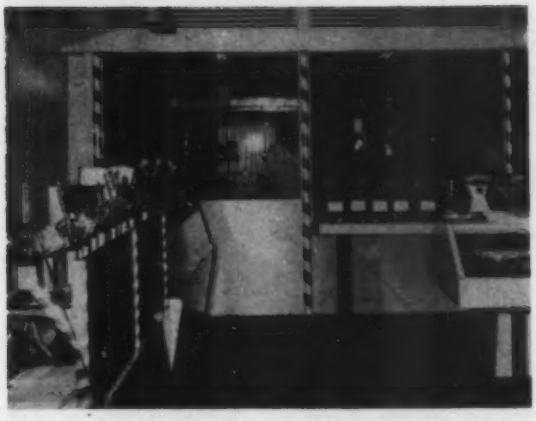
• • •

I SUPPOSE a steady, unrelieved diet of anything—from lettuce to blubber—would have some detrimental effects on the body, but I cannot believe all this printed stuff the doctors emit about special foods being killers of sickmakers.

If too much fat encourages heart attacks, tell me about the people like Eskimos, who live on a steady diet of fat.

The worst nourished people I ever knew are Central Africans, and I never saw one that didn't have a magnificent set of sparkling, uncavity-ed teeth—discounting always the Wakambas, who knock out the front fangs for ceremonial purposes.

Jo Sweenor and her daughter Mary behind the new 4 foot counters in Sweenors Open Fire Candies store.



View into the Sweenor kitchen through the plate glass window that separates it from the store.

The hard candy specialist

Sweenor's specializes in hard candy, a basic product that few retailers can make and practically all buy and repack

While many retail candy shops buy their hard candies from the larger manufacturers, Walter Sweenor's Open Fire Candies decided to capitalize on his knowledge of hard candy making, and has been successful with a line of the usual hard candies and with hard candy specialties.

Mr. Sweenor started manufacturing hard candies in the basement of his home in 1942 selling wholesale to department stores. When the new Garden City Shopping Center in Cranston, Rhode Island opened in 1955, he seized the opportunity to open his own retail candy store.

"We can depend on large numbers of prospective customers visiting all these various shops in the Center regularly," says Walter, "and most will be from nearby homes. This means that our candy must be of a quality that will bring repeat sales over and over."

The Sweenors opened with an exceptionally modern store, decorated in line with the new trend in shopping centers. Neat clean windows, protected on sunny days with a bright red and white awning. A sparkling interior features pastel colors skillfully blended . . . robin's egg blue counters on black bases, yellow, pink, red and shocking pink for accent . . . . the use of peg board on one wall, where Miss Mary Sweenor makes pictures with candy . . . . candy cane stripes of red and yellow throughout add gaiety . . . . all highlighted by the handsome modern directed lights from the ceiling. The Sweenors are especially proud of their candy counters, which are the very latest in design and are four feet high for ease in serving customers. It is without doubt one of the most modern and most beautiful candy stores of its type in the area.

Although Walter Sweenor makes all types of candy, and makes chocolate creams daily, his specialty is hard candy. "My father made hard candy for Kibbe of Springfield back as far as 1900," says Walter, "and even today he does a lot of hard candy work in his own shop in West Springfield, Mass. I learned the trade from him when I was a boy, and I've been making candy in the basement of my house for many years."

Walter Sweenor, left and his candy maker Jim Mahoney pulling candy within sight of customers in the kitchen of Sweenor's Open Fire Candies.

Through the glass partition customers may watch Walter, his helper and old time candy maker Jim Mahoney, and Walter's son Bill cooking, pouring and running candy through the cutters. The starch and chocolate departments are on the floor below, as Walter feels these would not be as attractive to customers.

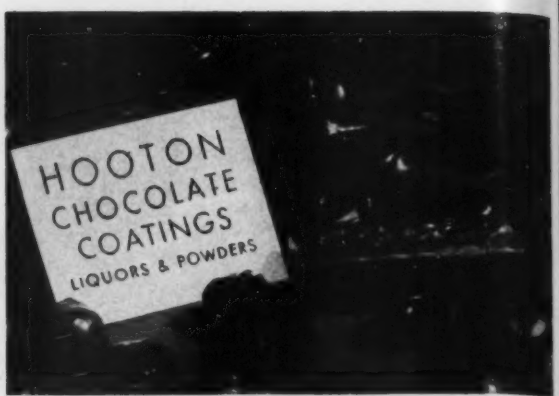
All equipment is new, and includes two 150 lb. chocolate melters, two cooling tables, two blower stoves, dipping table, a 12′ x 15′ starch room and a fine packing table. The entire store and plant is cooled by a five ton airconditioner. Visitors downstairs see the various coatings—milk, ivory, vanilla, dietetic milk and dietetic ivory.

"We have about 185 items on display," says Mary Sweenor, Walter's daughter and manager of the store, "including 35 different hard candies." Store hours coincide with the shopping center, 9 A.M. to 6 P.M. Thursday and Friday evenings until 9:30 P.M. Prices are usual for this part of the country, $1.45 a pound for chocolates, 79c for hard candies.

Sweenor's Open Fire Candies, advertises, but on a local scale. No television or radio, but local papers and the Providence papers carry ads, especially in the women's section. Dietetic candies are featured frequently. Garden City Shopping Center itself advertises, both on radio and television, and at holiday times is decorated in festival colors with various publicity ideas.

As the Sweenor family enters their third year making and retailing candy, they feel they are a part of the Garden City Success Story, one of the most successful shopping centers in New England.

The end



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A dependable source of supply for taste, appearance, and uniformity. Top performance that will appeal to you.

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Fine Chocolate Since 1897
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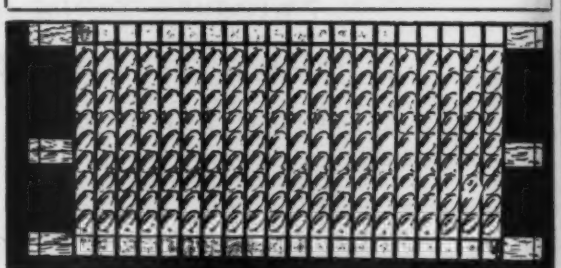

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Now with a NEW FINISH
which eliminates break-in-time
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COCOA BROKERS

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Cocoa and Chocolate Products

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50 gal. Model F-6 Savage Tilting Mixers, stainless kettle.
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50" two cylinder Werner Beater.
1000 lb. Werner Syrup Cooler.
200 lb. to 2000 lb. Chocolate Melters.
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Simplex Gas Vacuum Cooker.
Simplex Steam Vacuum Cooker.
Savage Cream Vacuum Cooler.
600 lb. Continuous Vacuum Cooker.
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We guarantee completely rebuilt.

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FOUR: Practically brand new Package Machinery Co.'s DF, 1 bar wrappers with roll card feeds & frame for 16" diameter wrapping reel.

ONE: Currie Stacker.

FOUR: 50 gallon National Cream Remelt Copper Kettles.

ONE: 24" Latini Decorator.

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The MANUFACTURING CONFECTIONER

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600 #/hr N.E. Hard Candy Cooker. Thos. Mills 3x6 Slabs. U.S. Automatic Cartoning Machine, Wrapade Sucker Wrapper. LP-3 Sucker Wrapper. Box 182, The MANUFACTURING CONFECTIONER.

24" Greer Enrober With Bottomer and Tunnel, 2-DF Bar Wrappers. Electric Eye Magazine Feed. "TLA" Package Mach. Set-up Machines. Box 183, The MANUFACTURING CONFECTIONER.

---

2 Hansella Plastic Machines With 10 Sets of Dies. Simplex Steam Cooker with High Dome, Stokes Transwrap Model "B" Volumetric. "LP" Sucker Wrapper. Box 184, The MANUFACTURING CONFECTIONER.

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WILL PURCHASE FOR CASH THREE LATINI DIE POP MACHINES. Box No. 1275, The MANUFACTURING CONFECTIONER.

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FOR SALE: California, Candy Factory. 5000 sq. ft. Pans and Hard candy. Selling to seven western states. Write Station A, Box 81, Berkeley, Calif.

FOLDING CANDY BOXES: All sizes carried in stock for prompt delivery. Plain, Stock Print or Specially printed. Write for our new catalog of Every-Day and Holiday Fancy Boxes, and all Paper Products used in the manufacture and packaging of candies. **PAPER GOODS COMPANY, INC.**, 270 Albany Street, Cambridge 39, Mass.

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FOREMAN: Available for Large Candy Manufacturer to take charge in all phases of Candy pan line including Starch, Jelly, Cream, Fudge. For Halloween and Easter Candy, Bubble Chewing Gum Base, and Slab work.

I will teach the above anywhere in the states and foreign countries. Box 9716, The MANUFACTURING CONFECTIONER.

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EXPERIENCED CANDY MAN—A well-known quality candy retailer located in Eastern & Midwest section of country requires an aggressive man who knows how to make all types of candies, with the ability to supervise and handle personnel. Rapid advancement for party with proper qualifications. In reply furnish the following information: personal background; training; experience; age and salary expected. Reply Box 1276, The MANUFACTURING CONFECTIONER.

CHEMIST for well established, financially secure candy manufacturer. Preferably broad experience, analytical processing, quality control and research. You may reply in detail, as all correspondence will be in strictest confidence. Box No. 1279 % The MANUFACTURING CONFECTIONER.

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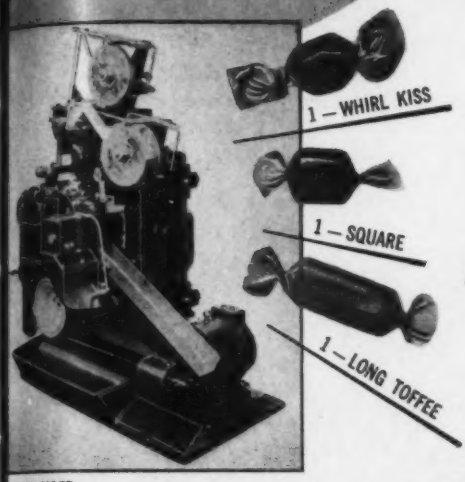
MOST MODERN HARD CANDY PLANT

- Some Machines New
- Other Machines Practically New

HARDLY USED

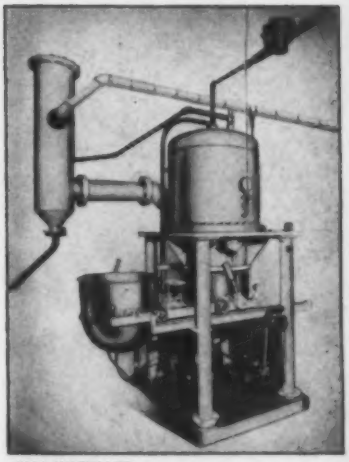
Attractively Priced For Quick Sale

IMMEDIATE DELIVERY



OLY USED
RCHASED NEW JULY 1955
-Forgrove 42C high speed Whirl-style
stic Cutting and Twist Wrapping Machine.
" x ⅛". Output is 600 pieces per minute.

INSPECTION CAN BE ARRANGED BY APPOINTMENT



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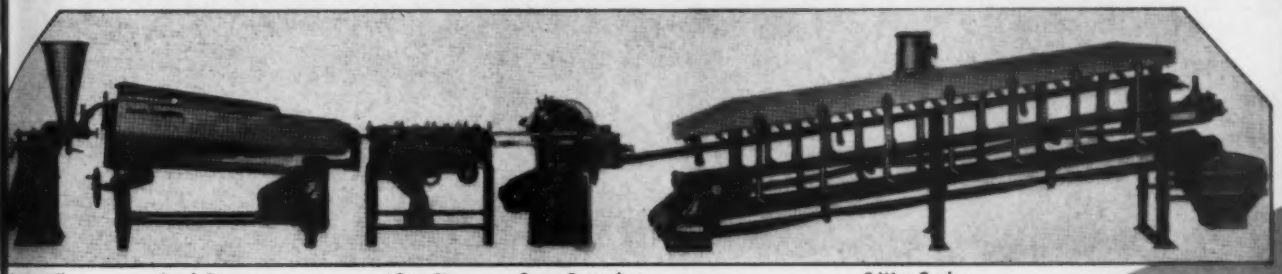
HARDLY USED
National Equipment High-Speed High-Gloss Continuous Hard Candy Vacuum Cooker. 600 to 2,500 lbs. hourly production.



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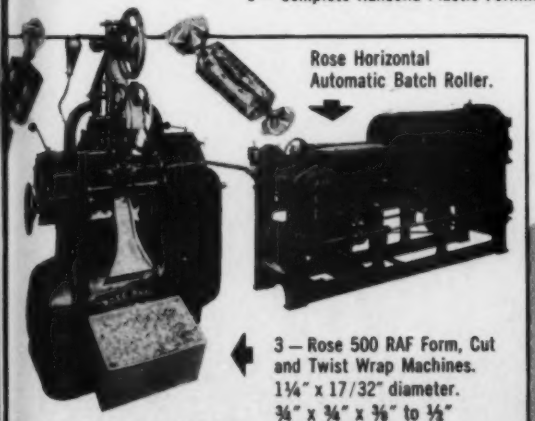
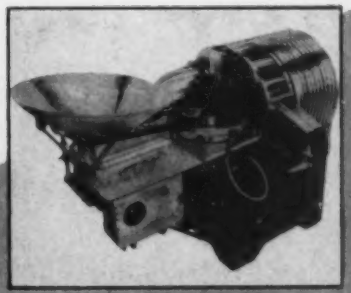


3 — Rose 500 RAF Form, Cut and Twist Wrap Machines.
1¼" x 17/32" diameter.
¾" x ¾" x ⅜" to ½"
1" x ⅞" x ⅝"

SOLD TOGETHER OR SEPARATELY



Rose I. S. T. Twist Wrapper for various pre-formed shapes. Twist wraps pre-formed pieces automatically at speeds up to 160 per minute.

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collect to arrange to inspect this equipment and for complete details and quotations.

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- Every type
- Every capacity
- For every need

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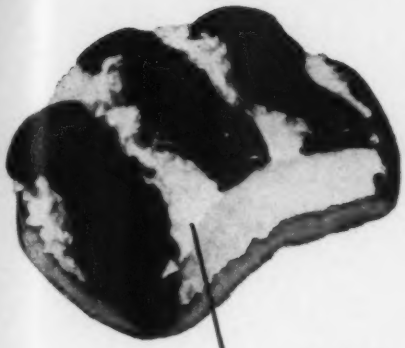

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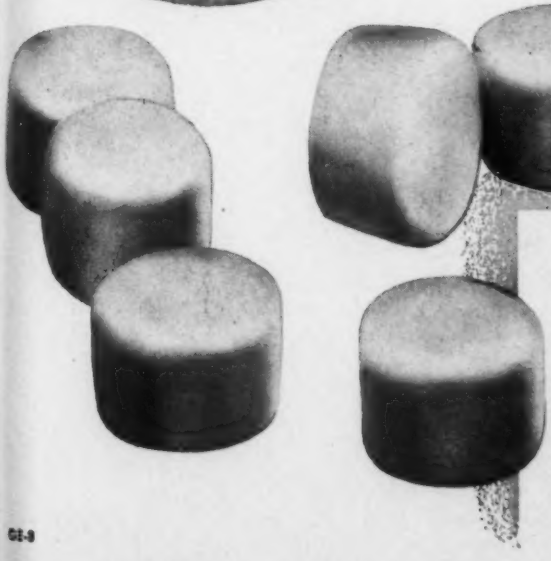
with SWIFT'S * SUPERWHIP GELATIN

• Better quality at lower cost! Sounds impossible doesn't it? Yet scores of manufacturers have proved it is possible when they make their marshmallow with Swift's Superwhip.

Swift's Superwhip Gelatin is made especially for marshmallow. It whips fast, sets fast and helps give your marshmallow that tender, yet resilient texture. Superwhip's high strength means less is required. Faster whipping and setting plus greater yield mean the lowest net cost to you.

Find out what Superwhip can do for you. Return the coupon for a trial order.

ONE TRIAL IS BETTER THAN A THOUSAND CLAIMS



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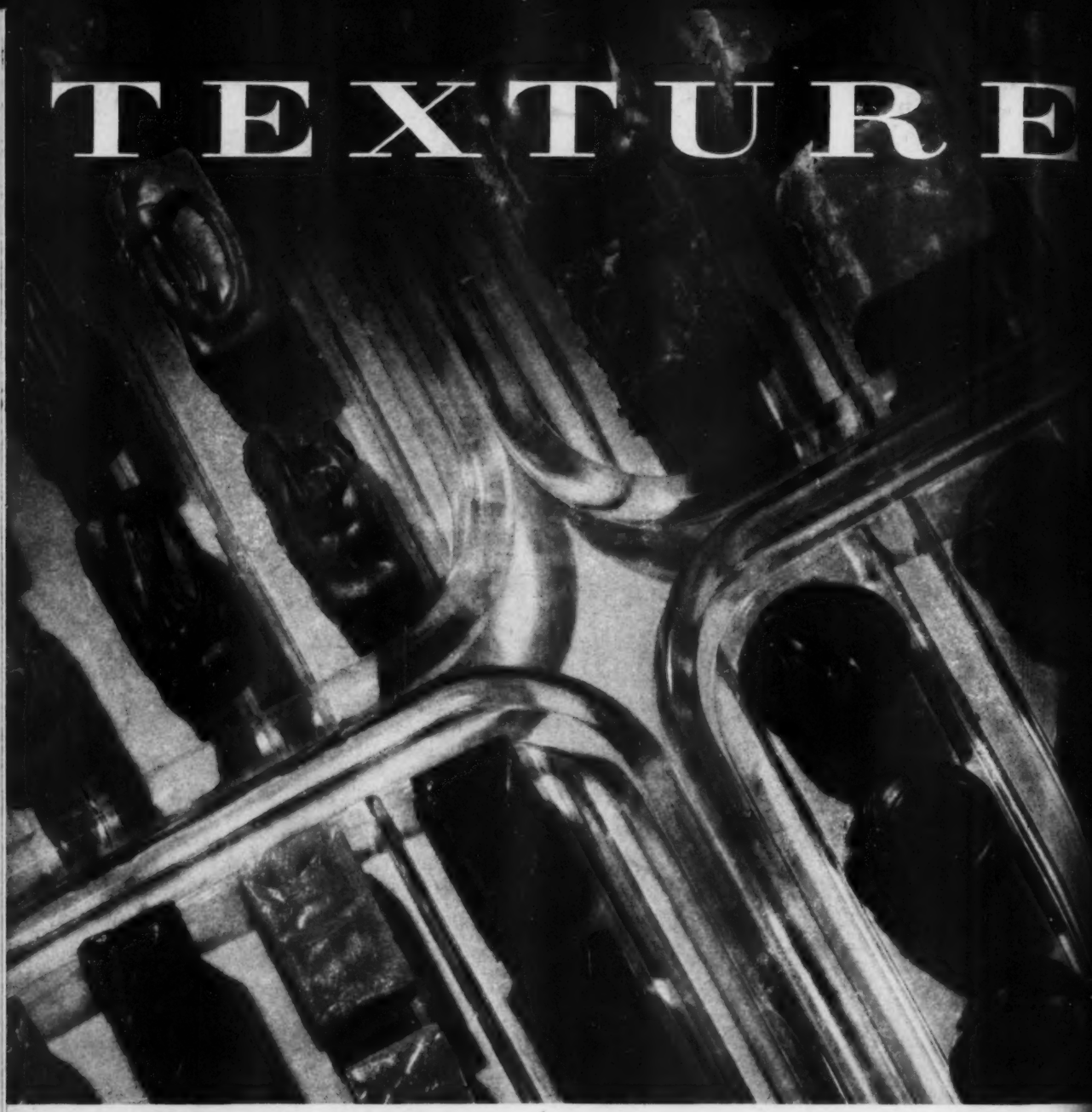
GI-9

TEXTURE



What single dairy ingredient improves texture and cuts milk costs up to 50%?

How do you achieve better texture?...By combining the right ingredients! The very chemical content and structure of Sweet Dairy Whey makes it a preferred dairy ingredient ...insures the smooth, even, uniform texture that consumers demand in modern candy products.

Why whey? Because more and more candy manufacturers are discovering that dry whey provides exactly the right balance of milk carbohydrate and milk protein, while saving them up to 50% on dairy ingredient costs. And look at these additional advantages over costlier dairy ingredients!

1. Better color...truer flavor.
2. Richer in lactalbumin, for moisture-retention and longer shelf-life.
3. Greater versatility of body and texture and improved handling characteristics.
4. Uniform in quality, meets or exceeds U. S. Extra Grade standard.

Now tailor-make your dairy ingredients... blend whey with your present milk...for optimum performance and savings up to 50%. *For complete information and a working sample, please write our Technical Service Department 115.*

New Whipping Agent
ANGEL-WHIP
replaces up to 50% of the Egg White or other whipping agents. While reducing ingredient costs, Angel-Whip retards corn syrup separation. Makes shorter, tenderer finished products...increases shelf-life... retains original freshness.

Valley Fresh **Sweet Dairy Whey**

Wisconsin's World's Largest Producer of Whey Products

50%?
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Angel-
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